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Association

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AMERICAN HOSPITAL ASSOCIATION

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Hospital Social Work. Miss Ida M. Cannon, *Director*. Inquiries may be addressed either to the office of the Association or to Miss Cannon, care of the Massachusetts General Hospital, Boston, Mass.

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Sister Amadeus and Sister Agnes Therese, St. John's Hospital, Cleveland, Ohio.
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DR. ROBERT J. WILSON, Ex-officio, Department of Health, New York, N. Y.

MR. H. E. WEBSTER, Royal Victoria Hospital, Montreal, Quebec. Term expires 1923.

MISS MARY M. RIDDLE, 47 Grafton St., Newton Center, Mass. Term expires 1923.

MR. DANIEL D. TEST, Pennsylvania Hospital, Philadelphia, Pa. Term expires 1924.

MR. RICHARD P. BORDEN, Union Hospital, Fall River, Mass. Term expires 1924.

DR. A. C. BACHMEYER, Cincinnati General Hospital, Cincinnati, Ohio. Term expires 1925.

REV. MAURICE F. GRIFFIN, St. Elizabeth's Hospital, Youngstown, Ohio. Term expires 1925.

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Alec N. Thomson, M.D., Chairman, Director Department of Medical Activities, American Social Hygiene Association, 105 W. 40th St., New York, N. Y.
A. K. Haywood, M.D., Superintendent, Montreal General Hospital, Montreal, Canada.
Walter Niles, M.D., Dean, Cornell Medical College, Ithaca, N. Y.

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Dr. S. S. Goldwater, *Chairman*, Director of Mount Sinai Hospital, New York, N. Y.
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Dr. W. E. Woodbury, Director, Hahnemann Hospital, New York, N. Y.
Mr. F. E. Chapman, Superintendent, Mount Sinai Hospital, Cleveland, Ohio.
Dr. Christopher G. Parnall, Superintendent, University Hospital, Ann Arbor, Mich.
Dr. R. G. Brodrick, Director, Alameda County Hospital, San Leandro, Calif.
Dr. Robt. J. Wilson, Director, Bureau of Hospitals, New York, N. Y.

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Miss Margaret M. Cumming, Superintendent, Christian H. Buhl Hospital, Sharon, Pa.

CLINICAL AND SCIENTIFIC EQUIPMENT AND SUPPLIES

- Mr. Louis R. Curtis, Superintendent, St. Luke's Hospital, Chicago, Ill.

FOODS AND EQUIPMENT FOR FOOD SERVICE

- Dr. C. W. Munger, Superintendent, Blodgett Memorial Hospital, Grand Rapids, Mich.
Dr. F. R. Nuzum, Director, Santa Barbara Cottage Hospital, Santa Barbara, Calif.
Miss Marion Peterson, Administrative Dietetian, Lakeside Hospital, Cleveland, Ohio.
Mr. C. T. Johnson, Superintendent, Washington Blvd. Hospital, Chicago, Ill.
Miss Alice Thatcher, Superintendent, Christ Hospital, Cincinnati, Ohio.

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- Dr. W. P. Morrill, *Chairman*, Superintendent, Charity Hospital, Shreveport, La.
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Dr. David H. Fuller, Superintendent, Municipal Hospital and Dispensaries, Fall River, Mass.

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MISS LULU S. GRAVES, *Chairman*, Supervising Dietitian, Mount Sinai Hospital, Cleveland, Ohio.

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TRUSTEE SECTION

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SMALL HOSPITAL SECTION

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Miss Clarabelle Wheeler, Superintendent of Nurses, Mount Sinai Hospital, Cleveland, Ohio.

Sister Cornelia and Sister Patricia, St. Vincent's Charity Hospital, Cleveland, Ohio.

Sister Amadeus and Sister Agnes Therese, St. John's Hospital, Cleveland, Ohio.

Mr. Guy J. Clark, Purchasing Agent, Cleveland Hospital Council, Cleveland, Ohio.

Dr. John D. Spellman, Superintendent, Touro Infirmary, New Orleans, La.

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Dr. A. C. Bachmeyer, *Chairman*, Superintendent, Cincinnati General Hospital, Cincinnati, Ohio.

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Dr. Joseph B. Howland, Superintendent of Peter Bent Brigham Hospital, Boston, Mass.

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Miss S. Lillian Clayton, Director of Nurses, Philadelphia General Hospital, Philadelphia, Pa.

Dr. J. E. Cutler, Dean, School of Applied Social Sciences, Western Reserve University, Cleveland, Ohio.

Miss Annie W. Goodrich, Director of Nurses, Henry Street Settlement, New York, N. Y.

Miss Mary C. Jarrett, Associate Director, Smith College Training School, Northampton, Mass.

Mr. John A. Lapp, Director, Social Action Department, N.C.W.C., Chicago, Ill.

Mr. Porter R. Lee, Director, The New York School for Social Work, New York, N. Y.

Dr. Roger R. Lee, Chairman, Executive Committee, Massachusetts Anti-Tubercular League, Boston, Mass.

Miss Kate McMahon, Director, Social Service Department, Boston Dispensary, Boston, Mass.

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- Dr. Frankwood E. Williams, Associate Medical Director, National Committee for Mental Hygiene, New York, N. Y.
- Dr. Louis B. Baldwin, Superintendent, University Hospital, Minneapolis, Minn.
- Dr. Lewis A. Sexton, Superintendent Hartford Hospital, Hartford, Conn.
- Dr. George O'Hanlon, Ex-officio, New York, N. Y. President of the American Hospital Association.
- Dr. A. R. Warner, Ex-officio, Chicago, Ill. Executive Secretary of the American Hospital Association.
- Miss Antoinette Cannon, Executive Secretary, Room 901, 105 E. 22nd St., New York, N. Y.

PREVIOUS CONVENTIONS

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<i>Vice-Chairman</i>	<i>Treasurer</i>
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III—NEW YORK CITY, SEPTEMBER 10-12, 1901

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<i>Vice-Chairman</i>	<i>Treasurer</i>
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2. JOHN M. PETERS, M.D. Providence, R. I.	
3. GEO. W. SAWYER Chicago, Ill.	

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2. GEO. E. RICKER, M. D. Minneapolis, Minn.	
3. JAS. R. CODDINGTON New Haven, Conn.	

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X—TORONTO, CANADA, SEPTEMBER 29-OCTOBER 2, 1908

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XI—WASHINGTON, D. C., SEPTEMBER 21-24, 1909

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1. A. B. ANCKER, M.D. St. Paul, Minn.	<i>Treasurer</i>
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AMERICAN HOSPITAL ASSOCIATION

PREVIOUS CONVENTIONS—CONTINUED

XII—ST. LOUIS, MO., SEPTEMBER 20-23, 1910

- | | |
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| <p><i>President</i>
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Peter Bent Brigham Hosp.,
Boston, Mass.</p> <p><i>Vice-Presidents.</i>
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Toronto, Can.
2. MISS MARY L. KEITH
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W. L. BABCOCK, M.D.
Grace Hosp., Detroit, Mich.</p> <p><i>Treasurer</i>
ASA S. BACON
Chicago, Ill.</p> |
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XIII—NEW YORK CITY, SEPTEMBER 19-22, 1911

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Grace Hosp., Detroit, Mich.</p> <p><i>Vice-Presidents</i>
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J. N. E. BROWN, M.D.
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ASA S. BACON
Chicago, Ill.</p> |
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XIV—DETROIT, MICH., SEPTEMBER 24-27, 1912

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|---|---|
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HENRY M. HURD, M.D.
Johns Hopkins Hosp.,
Baltimore, Md.</p> <p><i>Vice-Presidents</i>
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2. J. L. HUDSON
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New York City</p> <p><i>Secretary</i>
J. N. E. BROWN, M.D.
Gen. Hosp., Detroit, Mich.</p> <p><i>Treasurer</i>
ASA S. BACON
Chicago, Ill.</p> |
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XV—BOSTON, MASS., AUGUST 26-29, 1913

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| <p><i>President</i>
F. A. WASHBURN, M. D.
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Mass.</p> <p><i>Vice-Presidents</i>
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Gen. Hosp., Detroit, Mich.</p> <p><i>Treasurer</i>
ASA S. BACON
Chicago, Ill.</p> |
|--|---|

XVI—ST. PAUL, MINN., AUGUST 25-28, 1914

- | | |
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| <p><i>President</i>
THOS. HOWELL, M.D.
N. Y. Hosp., New York</p> <p><i>Vice-Presidents</i>
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Kingston, Ont.</p> <p><i>Treasurer</i>
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AMERICAN HOSPITAL ASSOCIATION

PREVIOUS CONVENTIONS—CONTINUED

XVII—SAN FRANCISCO, CALIF., JUNE 22-25, 1915

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Grand Rapids, Mich.

Secretary

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Kingston, Ont.

Treasurer

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Chicago, Ill.

XVIII—PHILADELPHIA, PA., SEPTEMBER 26-30, 1916

President

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Johns Hopkins Hospital,
Baltimore, Md.

Vice-Presidents

1. C. D. WILKINS, M.D.
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2. Miss N. B. JORDAN
Aurora, Ill.

3. A. R. WARNER, M.D.
Cleveland, O.

Secretary

Miss LYDIA H. KELLER
Minneapolis, Minn.

Treasurer

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Chicago, Ill.

XIX—CLEVELAND, OHIO, SEPTEMBER 10-15, 1917

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Vice-Presidents

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Providence, R. I.
3. GEORGIA M. NEVINS
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Secretary

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Philadelphia, Pa.

Treasurer

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Chicago, Ill.

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Supt., Rochester General Hos-
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WINFORD H. SMITH, M.D.
Supt., Johns Hopkins Hospital,
Baltimore, Md.

RICHARD P. BORDEN
Trustee, Union Hospital, Fall
River, Mass.

XX—ATLANTIC CITY, N. J., SEPTEMBER 24-28, 1918

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City and County Hosp.,
St. Paul, Minn.

Vice-Presidents

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Wesley Memorial Hos-
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3. Miss GRACE FAIRLEY
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728 Seventeenth St., N.W.
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River, Mass.

MARY L. KEITH, R.N.
Supt., Rochester General Hos-
pital, Rochester, N. Y.

AMERICAN HOSPITAL ASSOCIATION

PREVIOUS CONVENTIONS—CONTINUED

XXI—CINCINNATI, OHIO, SEPTEMBER 8-12, 1919

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Lakeside Hospital,
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New York City.

Executive Secretary

HOWELL WRIGHT
308 Anisfield Building, Cleve-
land, Ohio.

XXII—MONTREAL, QUEBEC, OCTOBER 4-8, 1920

President

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Supt., Peter Bent Brigham
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Executive Secretary

A. R. WARNER, M.D.
Office of the Association,
22 E. Ontario St., Chicago, Ill.

XXIII—WEST BADEN, IND., SEPTEMBER 12-16, 1921

President

DR. LOUIS B. BALDWIN
Supt., University Hospital,
Minneapolis, Minn.

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DR. GEORGE O'HANLON
Supt., Bellevue Hospital,
New York City

First Vice-President

DR. M. T. MACEachern
Supt., Vancouver General
Hospital, Vancouver, B. C.

Second Vice-President

MR. S. G. DAVIDSON
Rockford Hospital,
Rockford, Illinois

Third Vice-President

MISS ALICE M. GAGGS
Supt., J. N. Norton Memorial
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Chicago, Ill.

AMERICAN HOSPITAL ASSOCIATION

PREVIOUS CONVENTIONS—CONTINUED

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XXIV—ATLANTIC CITY, N. J., SEPTEMBER 25-28, 1922

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Executive Secretary

DR. A. R. WARNER
Office of the Association
22 East Ontario Street
Chicago, Ill.

Minutes of the
TWENTY-FOURTH ANNUAL CONFERENCE
of the
AMERICAN HOSPITAL ASSOCIATION
Atlantic City, N. J., September 25-29, 1922

OPENING AND GENERAL SESSION

September 25th—2:00 P. M.

President O'Hanlon in the chair:

Program

Invocation—By Rev. J. H. Robinson, Christ Hospital, Cincinnati, Ohio.

Address of Welcome—By Dr. J. J. Mooney, Jersey City, N. J., representing the Governor of New Jersey.

Address of the President—By Dr. George D. O'Hanlon, President of the Association.

Report of the Trustees—Read by Richard P. Borden, member of the Board.

Report of the Treasurer—Read by Dr. Robert J. Wilson, Treasurer.

Report of the Executive Secretary—By Dr. A. R. Warner, Executive Secretary.

Report of the Membership Committee—By Dr. Walter H. Conley, Chairman.

Second Report of the Committee on Hospital Forms and Records—By Dr. A. C. Bachmeyer, Chairman. By motion duly adopted, this Committee was continued.

Report of the Special Committee on the Relations between Hospitals and States and Cities—By John E. Ransom, Chairman.

GENERAL SESSION

CONDUCTED BY THE SECTION ON CONSTRUCTION

September 25th—8:00 P. M.

E. S. Gilmore, Chairman of the Section in the chair:

Program

Remarks by the Chairman—E. S. Gilmore, Superintendent Wesley Memorial Hospital, Chicago, Ill.

Report of the Special Committee on Floors—By Frank E.

AMERICAN HOSPITAL ASSOCIATION

Chapman, Director Mount Sinai Hospital, Cleveland, Ohio.

Report of the Exposition Committee on Buildings-Construction, Equipment and Maintenance—By Dr. S. S. Goldwater, Chairman.

Discussion of Questions Presented—Round Table.

GENERAL SESSION

September 26th—9:00 A. M.

President O'Hanlon in the chair:

Program

The Pennsylvania Department of Welfare—By Dr. J. M. Baldy, Commissioner.

Report of the Committee on Out-Patient Work, John E. Ransom, Supt. Michael Reese Dispensary, Chicago, Ill.

SECTION ON DISPENSARIES

September 26th—2:30 P. M.

John E. Ransom, Chairman of the Section, in the chair:

Program

The Educational Value of the Out-Patient Department in Relation to Practitioners of Medicine—By Dr. John M. Dodson, Dean Rush Medical College, Chicago, Ill.

The Educational Value of the Out-Patient Department in Relation to the Patient and the Community—By Dr. Haven Emerson, Professor of Hygiene and Public Health, Columbia, University, New York City.

SECTION ON DIETETICS

September 26th—2:30 P. M.

Miss Lulu G. Graves, Chairman of the Section in the chair:

Program

The Relation of the Hospital and the Child—By Dr. Frank Howard Richardson, Children's Department of Brooklyn Hospital, Brooklyn, N. Y.

The Organization of Dietary Departments in Hospitals—By Miss Marian Peterson, Lakeside Hospital, Cleveland, Ohio.

Report of the Exposition Committee on Foods and Food

AMERICAN HOSPITAL ASSOCIATION

Equipment—By Dr. C. W. Munger, Superintendent Blodgett Memorial Hospital, Grand Rapids, Mich.

GENERAL SESSION

September 26th—8:30 P. M.

President O'Hanlon in the chair:

Program

Standardization Values—By Dr. George David Stewart, President of the New York Academy of Medicine, New York City.

The Liability of the Hospital—By John A. Lapp, LL.D., Director Social Action Division National Catholic Welfare Council, Managing Editor The Nation's Health, Chicago, Ill.

TRUSTEE SECTION

September 27th—9:00 A. M.

President O'Hanlon in the chair to open this new Section and to introduce the appointed Chairman.

Mr. Arthur A. Fleisher, Chairman of the Section, takes the chair:

Program

Round Table Discussion on various topics of interest to trustees.

NURSING SECTION

September 27th—9:00 A. M.

Chairman Miss Laura R. Logan, Director of the School for Nurses, Cincinnati General Hospital, in the chair:

Program

A Discussion of the Report of the Rockefeller Committee and its Effect in Practice upon the Hospital Nursing Department—By Miss Amy M. Hilliard, R. N., Superintendent Samaritan Hospital, Troy, N. Y.

The Use of Ward Helpers—By Miss S. Lillian Clayton, R. N., Director of Nursing Philadelphia General Hospital, Philadelphia, Pa.

The Role of the Hospital Nursing Department in the Community Health Program—By Miss Annie W. Goodrich, R. N., Director of Nursing Henry Street Settlement, New York City.

AMERICAN HOSPITAL ASSOCIATION

Election of Officers:

Chairman—Miss M. Helena McMillan, Superintendent of Nurses Presbyterian Hospital, Chicago, Ill.

Secretary—Miss Ada B. Cleery, Superintendent Evanston Hospital Association, Evanston, Ill.

ADMINISTRATION SECTION

September 27th—2:30 P. M.

Dr. M. T. MacEachern in the chair in the absence of Dr. C. G. Parnall, the Chairman of the Section:

Program

Report of the Special Committee on the Renovation of Gauze and Standard Dressings—By Dr. A. B. Denison, Chairman, Assistant Director Lakeside Hospital, Cleveland, Ohio.

The Training of Hospital Executives—By Dr. Willard C. Rappleye, Executive Secretary of the Committee on the Training of Hospital Executives.

GENERAL SESSION

September 27th—8:00 P. M.

President O'Hanlon in the chair:

Program

Report of the Constitution and Rules Committee—Presented by the Chairman, Richard P. Borden. Received only.

Report of the Nominating Committee—By Dr. D. L. Richardson, Chairman. Report received and ordered posted.

Dr. M. T. MacEachern also nominated for President-Elect by J. C. Cummings, Superintendent Tacoma General Hospital, Tacoma, Washington. Seconded, received and ordered posted.

Tellers appointed and hours of voting set by President O'Hanlon.

SOCIAL SERVICE SECTION

September 27th—8:30 P. M.

Miss Mary Antoinette Cannon, Chairman, in the chair:

Program

What Social Service in its Hospitals Means to a Community—By William H. Matthews, Director of the Family Welfare

AMERICAN HOSPITAL ASSOCIATION

Association for Improving the Condition of the Poor, New York City.

Report of the Committee on Training for Hospital Social Work—By Michael M. Davis, Chairman.

How a New Jersey County and Its Hospitals Got Together—By John L. Montgomery, Executive Secretary Monmouth County Organization for Social Service.

Social Work with Problem Children—By Mary Tobin, Director Social Work Neurological Institute, New York City.

How a Small Community Can Maintain Social Service in Its Hospitals—By Miss Annette B. Cowles, Superintendent Children's Free Hospital, Louisville, Ky.

GENERAL SESSION

September 28th—10:00 A. M.

President O'Hanlon in the chair:

Program

Report of the Committee on Laundry Equipment and Supplies—By Dr. W. P. Morrill, Superintendent Shreveport Charity Hospital, Shreveport, La.

The Hospital Problem in Relation to Modern Medicine—By Dr. Willard C. Stoner, St. Luke's Hospital, Cleveland, Ohio.

Report of the Committee on General Furnishings and Supplies—By Dr. Harold W. Hersey, Chairman.

Report of the Committee on Clinical and Scientific Equipment and Supplies—A. B. Denison, Chairman.

GENERAL SESSION

September 28th—2:15 P. M.

Round Table.

Chairman Asa S. Bacon in the chair:

Program

General Round Table discussion of many hospital problems.

GENERAL SESSION

September 28th—4:00 P. M.

President O'Hanlon in the chair:

Program

The Report of the Committee on Constitution and Rules was approved.

AMERICAN HOSPITAL ASSOCIATION

Report of the Committee on Resolutions presented, approved and adopted.

Resolutions of the Trustees concerning the Report of the Committee on the Training of the Hospital Executives were approved by the Association.

Report of the Tellers on the election and the new officers declared elected.

President Bacon takes the chair.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fourth Annual Conference, Atlantic City, New Jersey,
September 25, 1922, 2:00 p. m., President O'Hanlon
in the Chair

GENERAL SESSION

PRESIDENT O'HANLON: The Association will please come to order. I have the honor of introducing Rev. J. H. Robinson, of Christ Hospital, Cincinnati, O., who will deliver the invocation.

REV. J. H. ROBINSON: O Lord, Thou has been our dwelling-place in all generations. Before the mountains were brought forth, Thou didst create the earth and the world, even from everlasting to everlasting, and we are now in Thy immediate presence and we pray that the meditations of our hearts and the words of our lips may be acceptable in Thy sight, O Lord, our strength and our Redeemer. Our dear Heavenly Father, we are here because in the multitude of councillors there is wisdom. We are here, recognizing the fact that we are fearfully and wonderfully made and our souls know it right well, and when we act in obedience to Thy law, Thou hast given us a few plain, common sense rules by which to run this great machinery Thou hast given us to manage and to use for Thy glory. But when we disobey Thy will, when Thy law is not recognized, then by chance or by the fact that we have violated Thy law, by some bewildering visitation of Thy providence, we find our great machine is out of order and so we become as a vessel that has to run into the harbor to be repaired and made ready for its voyage; we become as a watch that is out of time and has to go to Him who made it, and we are here coming to Thee, O God, to ask that Thou, who knowest all about our bodies, Thou who knowest all the organs and their functions, who knowest all the liability to which we are exposed, who knowest the supreme importance of having the great machine kept in perfect running order—we are here to find out how to do this, we are here to find the best anodyne for fever, we are here to find the most efficient way for managing the body in its illness, we are here, charged with this marvelous responsibility of taking care of humanity and its afflictions, and of so bringing to bear our knowledge and our

skill as to save life and to enrich the world in the years to come and bring a new confidence in Thee as the result of the ministrations of agencies and instrumentalities that are brought in by Providence to save childhood, to put new tonic into sick manhood, to give womanhood a new grip upon life, to give motherhood a chance. Oh God, our Saviour, we pray for wisdom, we pray for Thy blessing to be upon this great Association, we pray for Thy blessing to be upon the servants and upon the officials in connection with our great office and upon the great army of nurses. We pray that Thou who didst go about doing good, Thou who art the Great Physician, Thou who didst open the eyes of the blind and didst straighten crooked backs and put the paralytic on his feet and cleanse the leper, who didst, by Thy word, prove an anodyne to the afflicted wherever Thou didst go, we pray that Thou wilt give them Thy Spirit and Thy wisdom so that the outcome of our conference together may be the greatest good of the greatest number. God bless all our hospitals and the agencies employed for the restoration of health. We thank Thee for this age of discovery. We thank Thee that we have gotten far away, by the light of Thy Spirit, from the manifold ignorance of the past which have caused the needless deaths of millions of people, the perishing of millions of children. Oh God, we thank Thee for this age, for its appliances, for its discoveries, for its electrical power, for its medical efficiency, but we pray that more and more we may find that Thou art opening the way for us to succeed in saving life and in prolonging the days of men. And, oh, we pray that Thou wilt satisfy us early with Thy Mercy that we may be glad all our days. Oh, let the beauty of the Lord God be upon us in our service for the sake of Him who has taught us to say when we pray, Our Father who art in Heaven, hallowed be Thy name, Thy kingdom come, Thy will be done on earth as it is in Heaven, give us this day our daily bread and forgive us our trespasses as we forgive those who trespass against us, and lead us not into temptation, but deliver us from evil, for Thine is the Kingdom, and the power, and the glory forever, Amen.

PRESIDENT O'HANLON: Governor Edwards is unavoidably absent this afternoon, but he has sent a representative of this great commonwealth of New Jersey, who will say a few words of welcome.

DR. J. J. MOONEY, of Jersey City, N. J.: Members and guests of the American Hospital Association: The Governor of the state of New Jersey, our Governor, the Hon. Edward I. Edwards, regrets his inability to be present this afternoon at your meeting, and he has delegated to me the honor and pleasure

of extending his personal greetings to you all and a most cordial welcome to our state. The Governor has expressed the hope that your meeting will be replete with many and far-reaching results, and that your stay in our state at this, the playground of the world, will be a beneficial and most enjoyable one.

PRESIDENT O'HANLON: Dr. Mooney, I trust you will convey to the Governor our thanks for his welcome.

Permit me to welcome you to the deliberations of the twenty-fourth annual session of this association, and again to thank you for the honor you conferred upon me when you made me your president, for I consider the election to the presidency of this association the highest honor that can come to anyone in our work. Since my election my moods have varied, like those, I dare say, of every one of my predecessors. At first, like them, I am sure, I determined I would take time by the forelock and prepare this message at once, but alas, like most good intentions, my resolutions came to naught and days and weeks and months flew by without a line, until at last, when delay could no longer be permitted, I cast about for a subject, and it seems to me that everything conceivable has been written upon by my worthy predecessors.

Upon opening my mail one morning I received several questionnaires asking for information: What salaries are you paying your employees up to and including the superintendent? How has prohibition affected your hospital? What is the effect of the late war upon medical and surgical practice in the hospitals, on the profession and upon you as a superintendent? Should the superintendent of nurses be under the superintendent of the hospital? Can you recommend a certain sanitarium in New York advertising through the southwest a cure for obesity? Should osteopaths be allowed to practice in the hospital? Should hospitals be obliged to employ registered pharmacists? From Porto Rico came a letter asking about a cure for diabetes, and this and a variety of other letters brought forcibly to my attention the fact that we, as hospital administrators, live in a mass of questions, and it occurred to me that I might pass a few of them on to you. So if the fragmentary remarks I shall make to you must have a title, I think it might well be "The Great Question."

As I said, we hospital administrators live in the midst of a mass of questions. They rise and confront us on every hand. They grow up like thistles in the field—questions social, economic, financial, nursing, medical, industrial and international. We walk in a forest of them, some as tall as trees and seem-

ingly as big in girth, while others form a jungle of little irritating problems that catch at us and tear us as we try to make our way. Everybody seems so busy asking questions that nobody seems to have time to answer them. One favorite way of trying to answer them is to send out a questionnaire; as if we had moved toward the answer to one question by raising forty more. Never mind whether anyone answers or not; send out the question, then feel that you have done something. The sign of the times seems to be a huge question mark.

That the development and extension of the interests of this association have been along lines mapped out for it in an attempt to answer the questions of its members is perfectly apparent to one who looks over the program of its earlier conferences. In the beginning there were most valuable contributions to the literature of hospital administration by the recognized pioneers in the field. Then came the committees with their report on some particularly difficult or obscure question; then as a solution for the various perplexities appeared the question box and answer which now is seen in such large letters as a part of our program in the form of round table conferences. As time passed and our work broadened, in order to meet the ever-increasing demand for varied information it was necessary to set apart a place on the program for groups doing a special piece of work. These groups express themselves to you from the program, each year increasing in number in the form of section meetings.

The seventh, the trustees' section, appears for the first time this year, and it would seem there could be no greater contribution to our association than will come from the closer relationship with the governing bodies of all of our institutions. Do your trustees annoy you? Should we educate the board of trustees? How much should the board of trustees know about the hospital? These are questions I have heard propounded from the floor at more than one of the previous meetings of this association, and I must confess it was more or less of a shock to find some apparent concurrence from members to the thought that trustees should be kept in ignorance regarding anything pertaining to the work for which they are responsible, and in the performance of which we are their representatives. In my opinion, the best way to educate a trustee is to bring him and his hospital into the personal or institutional membership of this association, and in behalf of the association I today officially welcome this new section to our body.

The growth in our membership has been slow and steady, but not in any way commensurate with the number of hospitals springing up throughout the United States and Canada. In

Bulletin No. 3 for this year, the executive secretary presents some interesting data relating thereto, with helpful interpretive suggestions which I commend to your careful consideration. Some of our more conservative members have expressed apprehension lest the increasing number of state, or independent, hospital associations would detract from our parent organization, and ultimately bring about its dissolution. While as conservative as any, I feel no such apprehension; on the contrary, I believe the field is broad enough, and we as executives should be sufficiently expansive in our views to welcome any group, be it geographical, denominational or otherwise.

The facilities for communication as between members and officers of this association are, as you know, practically restricted to the bulletins issued at irregular intervals by our very able executive secretary. While individually and collectively we, as members of this association, are under limited obligations to the owners and publishers of the hospital journals now in the field, the time must come when we shall have a publication of our own. The American Medical Association has its journal; the American Psychiatric Association has its journal; the American Occupational Therapy Association publishes *The Archives of Occupational Therapy*; the Canadian National Association of Trained Nurses has its official organ in *The Canadian Nurse*; the American Nurses' Association publishes *The American Journal of Nursing*; social service also has its journal, so why not the American Hospital Association?

The executive secretary will tell you the trustees are exercising a progressively increasing degree of control and supervision over the activities of the association. It is becoming more and more, as it should be, your association, and I think it is not too much to state very positively and definitely that the association is not controlled by any group or clique. The policy shall be whatever you would like it to be, but you must not sit quietly back in your office chair, keeping your ideas and suggestions to yourself. Send them to the trustees or the secretary. I am sure nearly everyone here today has some thought of his or her own of what should be done at this meeting. The number passing on to the president those suggestions, I assure you, is surprisingly few.

To meet the criticism so often openly expressed of the association's method of electing its officers, your trustees are this year offering a new and, we trust, more satisfactory form. While the committee will present for your consideration definite nominees for the respective offices, any member or voting delegate may place in nomination from the floor any person he may wish,

or he may place upon his ballot the name of any person he may prefer.

I often wonder how many of us pause to consider how much has really been accomplished by and through the hospitals in this country during the last fifty years. Do you realize the oldest training school in the United States has not yet celebrated its fiftieth anniversary, and that when it was established there were only 140 hospitals in this country, including institutions for the insane, while today there are over 7,000—an increase of 5,000 per cent? That the first ambulance service in the world connected with a general hospital was established in the city of New York in 1869? That the first school connected with a hospital for the practical training of midwives was opened in 1911, and today twenty-eight states have laws regulating their practice, thus officially recognizing them as a professional group? That hospital social service dates back only seventeen years, and how many of us have yet to be convinced that our staff is not complete unless we have one or more social service workers upon it? Are we all awake to the value of prescribed occupation, and are we giving our patients the benefit of this therapeutic measure, or are we just quietly resting back deluding ourselves that it is a fad or passing fancy?

Our hospitals should be centers of social service, especially in the way of hygienic instruction. In the matter of prevention, hospital officials have a large and inviting field of labor. We should take a lively interest in the matter of public education, because, to my mind, that lies very near to preventive work. Disease, pauperism, crime, the alcohol question, as these relate to our own locality, all come within the purview of the hospital administrator, and he should prepare himself by study, not only of the patients coming to his hospital, but of their antecedents and surroundings, their work, their recreations and habits, in order that he may speak with authority.

The after-care or follow-up of discharged patients is happily being undertaken by hospitals through auxiliaries, special agents and trained social workers. This work should be widely extended. We should take a lesson from Timon of Athens, who taught that

“’Tis not enough to help the feeble up, but to support him after.”

The hospital so situated that it maintains an out-patient service will find here a rich mine for exploitation, and one which will aid materially in bringing cases promptly under care, but by the same token will reduce the pressure for beds within the hospital. If the hospital administrator can engage in teaching

of any kind he should take advantage of it. Nothing sharpens one's wits so much as contact with a critical audience. The hospital that is doing its full duty is in itself a place of education—training the recent graduate in medicine in the application of medical science, training nurses, attendants, social workers, dietitians, technicians—a real laboratory for the study of psychology. The hospital superintendent who does not see opportunities for work beyond the restricted horizon of his hospital enclosure is shortsighted and misses his opportunities for the best work, and the board of managers or directors which does not encourage him in making the best use of such opportunities does not appreciate the full value possible to the community in the institution which it supervises, nor the opportunity for making the hospital do its full duty.

This is the day when efficiency in all departments of human endeavor is preached. The man, the machine or the hospital which is not working to its full efficiency is a losing proposition. It may be difficult sometimes to make those who hold the control, who govern the expenditures, see that some of the best returns from hospital activities can often be found in fields which at first glance do not appear worth cultivating or which may seem too remote. No better method could, in my opinion, be devised for awakening public interest in or public support and sympathy for the work we are doing than by showing the public that the officials and personnel of our hospitals have not only an interest in the welfare of the patients in the wards, but also in that of the people of the community, in their health, in their work, in their environment, in their cares and perplexities, in their social problems, and herein lies much of the value of the Hospital Day or Week.

The opening sentence of one superintendent to the trustees of his hospital in his annual report begins with this sentence: "The besetting weakness of a hospital superintendent is the complacency with which, when rendering the annual account of his stewardship, he reviews the operations of his particular institution." Is it not possible that too often complacency is shown not only at the time of making our annual reports, but is a continuous condition of mind with many of us throughout the entire year? Are we sufficiently "alert with noble discontent?" Are we not too sufficiently satisfied if our patients are comfortably housed in wards not too crowded, the routine of the day's work not interrupted by untoward incidents, and our income commensurate with our expenditure? Are we content with keeping up with the procession or are we ambitious to lead the van? Do we indeed keep up with the procession when we com-

pare our work and results with what is being done in other general hospitals over the land?

"Faithful are the wounds of a friend"; remember, please, should there be any querulous ones, my queries are not in the line of criticism. I do not place myself in the category of those who know a little more than you, but, on the contrary, much less than many. Neither do I propose to deny what I cannot see, nor deride that I have never felt. For more years than I care to remember I have watched the progress of general hospital administration, and have longed for the time when as a field of work for ambitious men and women it should come into its own. I believe the time is coming; it remains for us to hasten or hinder the day.

REPORT OF THE TRUSTEES

Since the last report to the Association, your trustees have held six regularly called and one unofficial or impromptu meetings. The impromptu meeting was made possible by the presence of a majority of the members of the Board in Chicago, March 9th and 10th, in attendance at the sessions of the American Conference on Hospital Service. At each of the meetings, the President presided.

A statement of the financial transactions classified into a formal report is sent to each Trustee every month. These reports are given consideration at each meeting and keep the Trustees informed at all times as to the financial condition of the Association. The changes in the membership roll of all classes are also reported to the Trustees each month.

Only a few of the specific acts of the Board can be reported here. The decisions to be mentioned in this report are those which appear to have direct bearing on the conduct, the discussions and the possible acts of this Conference. The plans and facilities for the Conference itself, however, speak for themselves.

The following resolution recommending the enlargement of the Nominating Committee was passed at the meeting in West Baden, September 16, 1921:

VOTED: That the Trustees recommend to the Constitution and Rules Committee that they consider the question of enlarging the Nominating Committee from three to five members so that all the natural Geographical Sections of the hospital field may be represented thereon.

At the meeting held in New York, January 12th, resolutions were adopted recommending to the Committee on Constitution and Rules the extension of active personal membership to in-

clude "the executive officers of any state or nation wide organization having as its primary purpose the development of hospitals and hospital service." It was also recommended to include the retiring president among the ex-officio members of the Board of Trustees.

The need for uniformity in the constitutional provisions for personal membership in the American Hospital Association and in all of the Geographical Sections was discussed by the Trustees at this same meeting and by appropriate resolution they expressed their opinion that harmonious and effective organization required this uniformity. The President was authorized and directed to call a meeting of the officers of the Geographical Sections to determine upon a wording of these provisions acceptable to all.

The Trustee Section, which holds its first session with this Conference, was authorized at the West Baden meeting, September 16th.

At the first meeting of the present Board there was discussion of the need of the Association for an immediate increase in the available funds and the raising of a guaranty fund. "It was the consensus of opinion that at the present time it was better for the Association to make further attempts to provide itself with the necessary funds through increase in memberships before asking contributions to a guaranty fund. It was, therefore, voted that the Association should at this time make direct appeal to all state, city and other hospital associations and to all Institutional and Personal Members to assist in the securing of additional memberships to the end that funds now urgently needed for the development of the Association and its service to the field be in this way provided."

The report of the committee supported by the Rockefeller Foundation to work out plans for the training of hospital superintendents was considered at the meeting in Chicago, June 16th. The two following resolutions were unanimously adopted:

RESOLVED: That the Trustees of the American Hospital Association do hereby express unqualified approval of the report of the Special Committee appointed by the Rockefeller Foundation for the Study of the Training of the Hospital Superintendent both as to the principles set forth and the statements made, and also as to the suggestions for future procedure and action; and be it further

RESOLVED: That the Trustees do hereby urge upon the Rockefeller Foundation and other institutions which can make practical contributions thereto consideration of the suggestions in this report as to future action, that the actual training of hos-

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pital superintendents in the required numbers and along the lines suggested by the report may be accomplished at the earliest possible date.

This report will be discussed in the Administration Section.

The plan for the Exposition Committee serving at this Conference was developed and authorized at the meeting held in the Bellevue Hospital, January 12th.

At this meeting regulations were drawn requiring that the approval of all reports and bulletins by a Committee of the Trustees be secured before publication and distribution.

A Committee of the Trustees was appointed to work out a plan for voting better suited to the present size and constitution of the Association than the past routine. This Committee reported at the meeting held in Chicago, June 16th. The details of this report, which was approved by the Trustees, have been published in the Bulletin, in the magazines, and otherwise announced. The registration for this Conference is proceeding on this basis. Every person entitled to vote should become familiar with it.

It is the opinion of the Trustees that the past year has been a prosperous one for the Association and that distinct progress was made.

REPORT OF THE TREASURER

To the Board of Trustees,

The American Hospital Association,
Chicago.

Dear Sirs:

We have audited the accounts of the American Hospital Association for the year ending August 31, 1922, and submit herewith a Statement of Cash Receipts and Disbursements for the year with our comments thereon.

The Cash on Hand at August 31, 1922, as shown in Exhibit A, amounted to \$3,622.34, which was accounted for as follows:

Cash in Bank:

Gauze Renovation Fund.....	\$ 389.21
Hospital Flooring Fund.....	167.13
General Fund	3,016.00
	<hr/>
	\$3,572.34

Petty Cash Fund.....	50.00
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Total.....	<hr/>	\$3,622.34
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The Cash in Bank was verified by reconciliation with the balance as certified to us by the depository, and the Petty Cash Fund was verified by actual count.

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At August 31, 1922, the Life Membership Fund amounted to \$1,638.15, represented by the following assets:

Liberty Loan Bonds (par value):		
Third 4¼%—1928.....	\$450.00	
Fourth 4¼%—1938.....	100.00	
		\$ 550.00
Great Northern Railway Company 7% Bonds, due 1936 (par value \$600.00) at cost.....		573.48
City of Tulsa, Oklahoma, Sewer Tax Warrants:		
Due December 15, 1922.....	\$189.84	
Due December 15, 1923.....	176.72	
		\$ 366.56
Cash in Bank.....		148.11
		<u>\$1,638.15</u>

We have received a certificate from the Union Trust Company stating that they hold these bonds for safekeeping and verifying the balance on deposit.

Yours faithfully,

ARTHUR YOUNG & Co.,
Auditor.

Sept. 19, 1922.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS

FOR THE YEAR ENDING AUGUST 31, 1922

Balance, September 1, 1921.....	\$ 5,978.80
<i>Receipts:</i>	
Institutional Membership Fees—Active.....	\$ 8,445.65
Associate Membership Fees.....	70.00
	\$ 8,515.65
Personal Membership Fees—Active.....	4,353.00
Associate Membership Fees.....	387.96
Life Membership Fees.....	25.00
	4,765.96
1921 Commercial Exhibit.....	4,225.00
1922 Commercial Exhibit.....	12,835.00
	17,060.00
Interest on Bank Balances.....	35.55
Sales of Transactions.....	60.00
Reimbursement for Expenditures made on account of Hospital Forms.....	620.46
Social Service Bureau.....	698.85
Glen Falls Hospital.....	183.70
New England Hospital Association.....	19.20
Montreal Survey	2,393.17

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Committee for Training Hospital Social Service Workers	507.29		
Sundries	59.35		
		4,482.02	
Donations—Gauze Renovation Fund.....	500.00		
Sundry	5.00		
		505.00	
Miscellaneous		30.90	
Total Receipts			35,455.08
			<u>\$41,433.88</u>
<i>Disbursements:</i>			
Office of the Treasurer—General Trustee....		\$ 25.00	
General	\$ 9.25		
Traveling	564.49		
		573.74	
Home Office—Salaries	14,196.37		
Traveling	707.00		
Equipment	214.07		
Supplies	642.65		
Bulletins	880.33		
Transactions	1,748.90		
Petty Cash	1,296.71		
General	2,446.57		
		22,132.60	
Convention Expense—Commercial Exhibit..	5,945.14		
General	2,045.57		
		7,990.71	
Service Bureaus—Social Service.....	603.55		
Dispensary and Community Relations.....	802.77		
		1,406.32	
Committees—Gauze Renovation and Surgical Dressings	110.79		
Training of Hospital Social Service Workers	849.57		
Out Patient	232.23		
		1,192.59	
Montreal Survey		2,493.17	
Flooring Study		703.93	
Donation to American Conference on Hospital Service Library		1,000.00	
Hospital Forms		160.48	
Transferred to Life Membership Fund.....		25.00	
Sundry Refunds		108.00	
Total Disbursements			<u>37,811.54</u>
<i>Balance, August 31, 1922:</i>			
Cash in Bank, Union Trust Company.....		\$ 3,572.34	
Petty Cash Fund on Hand.....		50.00	
			<u>\$ 3,622.34</u>

REPORT OF THE EXECUTIVE SECRETARY

The progress of your association in the past year markedly exceeded that of the previous year. The reports of the Trustees, of the Membership Committee, of the Treasurer, and all other reports will attest this. We are meeting for the first time in a building designed and used for the meetings of national groups; we have outgrown even the largest hotels. This Conference, this attendance, this program, the special reports which have been prepared with so much care and the Exposition in the adjoining hall speak for themselves.

There are, however, a few facts about the past year which must be told—facts which account for the accomplishment of foundation work, for the acceleration of progress and for the energy that has made the wheels move faster.

For the last four years, to the personal knowledge of the writer, your Trustees have exercised a progressively increasing degree of control and supervision over the activities of the Association. Matters that were a short time ago routine decisions in the office of the Secretary are now determined by vote of the Trustees after mature consideration of the question. This is the real basis of the recent growth in the activities of the Association and this is the guarantee of further development.

The number of those willing—even anxious—to work hard with the Association on committees or alone for the common welfare, for service to the field and for the advancement of the Association seemed multiplied many fold. Any call was responded to as never before.

To those who have served on official committees the Association will express its thanks, but to those unnamed, numbering many times more, who have responded just as cheerfully to the call for work and who have made equally good at the tasks set before them, the writer desires to express for the officers of the Association our thanks and high appreciation. We wish also to transmit to them the sincere gratitude of the institutions and persons helped. The superintendent who compiles facts and figures for others and considers problems existing in another institution is certainly one who is effectively doing the real work of the Association and rendering service to the field.

The tenor and type of the correspondence changed in several ways. The letters requesting information or presenting problems for consideration were written—not to a person but as to an institution. They simply assumed that such was the routine procedure to learn of compiled facts or to get a consensus of opinion of the best informed. To the answers many—even hundreds of persons and institutions both within and with-

out the Association—contributed. There was also the general assumption that the Association existed for the development of the field and belonged to the field.

There has been more correspondence with the trustees of hospitals and more letters from outside sources seeking general information concerning the field. Many letters also indicated that the Association had become more widely known.

The stronger position of the Association is reflected in the Exposition. The increase in size this year is through the addition of new lines and larger, stronger firms more nearly representing basic production. We could not have secured an Exposition like this last year even by the expenditure of great effort. It came of itself this year.

In our accomplishments we are happy, but compared with the opportunities and possibilities clearly open to an Association of the American and Canadian hospitals and hospital people, they seem so meager—even for a single year's work.

Your Executive Secretary evaluates all facts, figures and evidences of the activity of the Association in terms of their contribution toward the development of a stronger active organization of the hospitals and hospital people to build their betterment that they may have more to give in public service—the kind of an organization that many industrials have developed to advance their interests in every way and to improve their production, the kind that impels every member to take pride in their membership and use it, the kind that returns to each member in knowledge gained and in stimulated action a value many times any membership fee. The common responsibilities of hospitals through their trustees and managers under any name demands such an active and general organization, both for the protection of the institutions and in the interests of the public. These responsibilities are increasing with each advancement in the medical sciences and every development or standardization of institutional activity.

It can never be forgotten that every patient must necessarily stake his all on that one particular hospital. No other aid can reach him. It is this fact that makes the management of every hospital—however small—so serious a trust. Who is to blame when a hospital loses lives from a high percentage of infections or fails in any way? The various alibis advanced by hospital trustees and managers when in trouble become of no practical moment in the face of the growing unanimity in supreme court decisions. These are placing a steadily increasing responsibility upon the institutions themselves, demanding from their man-

agers a proper protection of the public as their function and duty.

The big problem and responsibility of any board of trustees and any superintendent is to know what is the best service, what are the best policies and practices, what are the best end results that can be attained and how to get them in their hospital. Can they ever know or even be reasonably assured from their own experience and performance alone that they have the best or that their results have acquired only a justifiable expenditure of money and effort? To know this, constant contact with the rest of the field is essential that there may be the necessary comparisons and comparisons reduced to equal terms. There is need at reasonable intervals for the stimulus from personal contact and contentions with others facing the same problems; there is need for the actual seeing, handling and study of the improved productions in equipment and materials used; there is need for thinking that daily routine will never provoke or permit: there is need for an organized way to ask a question that the questions of all may be answered without imposing burdens: there is need for concerted action and the establishment of recognized standards of work.

The American Hospital Association was organized, developed and exists to act as the medium and means through which all this may be accomplished and to aid all hospitals and their trustees or managers under any name to fulfill the trusts and duties they have assumed.

REPORT OF MEMBERSHIP COMMITTEE

Your Membership Committee begs to submit the following report of its work during the past year.

Your Committee has received, considered and either approved or disapproved of all applications for institutional membership and all applications for personal membership, except those submitted by the Geographical Sections. The Membership Committees of the several Geographical Sections pass upon all applications for personal memberships in their respective states, and routinely report accepted members to the office of the Executive Secretary of this Association.

Our report includes many new Personal Members. The figures submitted combine those approved by your Committee and those recommended by the Geographical Sections.

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INSTITUTIONAL MEMBERSHIP

ACTIVE

Institutional Members on roll at last Conference.....	358	
New members accepted since last Conference.....	110	
	<u>468</u>	
Resignations	2	2
	<u>—</u>	<u>—</u>
Number on roll Sept. 1, 1922.....		466
Net increase for the year, 108 or 30%.		
To be compared with a net increase last year of 48 or 15%.		

ASSOCIATE

Number on roll Sept. 1, 1922.....	7	
(This form of membership did not exist last year.)		
	<u>—</u>	
Total number of Institutional Members of both classes Sept. 1, 1922		473
The number of Institutional Members today is 482.		

PERSONAL MEMBERSHIP

HONORARY

Total number of Honorary Members.....	10
(No change this year or last year.)	

LIFE

<i>Active—</i>		
Total number of Active Life Members.....	26	
(No change in the past year.)		
<i>Associate—</i>		
Members on roll at last Conference.....	5	
New members accepted since last Conference.....	1	
	<u>—</u>	
Number on roll Sept. 1, 1922.....		6
Total number of Life Members of both classes Sept. 1, 1922....		32
Net increase for the year, 1 or 3%.		
To be compared with a net increase last year of 15 or 93%.		

ACTIVE

Members on roll at last Conference.....	1,082	
New members accepted since last Conference.....	260	
Associate Members transferred to active membership.....	2	
	<u>1,344</u>	
Resignations	88	88
	<u>—</u>	<u>—</u>
Number on roll Sept. 1, 1922.....		1,256
Net increase for the year, 174 or 15%.		
To be compared with a net increase last year of 207 or 23%.		

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ASSOCIATE

Members on roll at last Conference.....	204	
New members accepted since last Conference.....	65	
	<hr/>	
	269	
Resignations	22	
Members transferred to active membership.....	2	24
	<hr/>	<hr/>
Number on roll Sept. 1, 1922.....		245

Net increase for the year, 31 or 15%.

To be compared with a net increase last year of 17 or 9%.

Total number of Personal Members of all classes on roll Sept. 1, 1922... 1,543

Net increase for the year, 216.

To be compared with a net increase for last year of 238.

The number of Personal Members today is1,600

Your Committee wishes to call the attention of the Association to the Constitutional provision creating associate institutional membership. This class of membership was added at the meeting a year ago, so that organizations connected with or interested in hospitals might have direct information from this Association concerning hospital work, and also receive the literature sent out by this Association. The members accepted under this Constitutional provision include:

One national department having jurisdiction over the hospitals of the nation—namely, Department of Health, New Zealand.

One state department having jurisdiction over the hospitals of the state—namely, The Pennsylvania Department of Public Welfare.

One university medical college—namely, Cornell.

One new type of organization in the hospital field—namely, The Joint Administrative Board of Columbia University and Presbyterian Hospital.

One state organization of hospital department work—namely, The Illinois Society of Occupational Therapists.

One national committee—namely, The National Hospital Day Committee.

And one, only one, organization of a hospital—namely, The Woman's Auxiliary Board of the Presbyterian Hospital of Chicago.

We can safely say that the desire for routine information as to the activities of this Association prompted each of these applications.

It is clearly to the best interests of every hospital and every hospital executive that all organizations connected with hospitals affiliate themselves with this Association in this way, thus receiving the literature sent out by the Association, and obtaining the trend of thought and action as expressed in and through the Association.

We cannot help closing this report without asking the following question: Why are the organizations so few and in such

a minority when they can be so readily reached by the hospital executives represented in the above membership?

Respectfully submitted,

WALTER H. CONLEY, Chairman,

C. J. CUMMINGS,

CHARLOTTE J. GARRISON,

Committee on Membership.

REPORT OF THE COMMITTEE ON HOSPITAL FORMS PERTAINING TO ANNUAL REPORTS

A resolution was adopted at the last conference requesting the "assignment to an existing committee or the appointment of a special committee to work out a standard annual report, establishing definite standards as has been done by the Committee on Forms."

This work was assigned to the Committee on Hospital Forms, which had its inception because of a general feeling that hospital statistics were now of little value for purposes of comparison, due to the lack of uniformity in their compilation. Having adopted the principle of uniform recording as recommended in last year's report, it naturally follows that our Annual Reports, to be of the greatest value, should be constructed on similar uniform lines.

In order to discuss an outline for an Annual Report it is best to attempt to visualize the purposes and function of such report. Their prime object is publicity. Many reports as now compiled do not serve to the maximum of their ability, for the reason that they have not been designed with a full realization of the value of such publicity properly disseminated.

It is our belief that, to prove of greatest value, an Annual Report should at least serve the following purposes:

1. As a public report to the community of the institution's activities, both financial and professional.
2. As a permanent record to boards of trustees, auxiliary committees and other supporting bodies.
3. To serve as a basis for allocating subsidies in committees operating under a community chest or similar subsidy plan.
4. As a public recognition of contributions or donations, etc.
5. As a permanent record and public acknowledgment and recognition of the service of the various professional men and women connected with the hospital.
6. To convey to the medical profession in general information concerning professional services rendered.
7. To convey information to other allied groups, such as nurses, social workers, dietitians, etc., concerning such hospital activities as are of interest to them.
8. To convey information to the hospital and public health fields concerning the activities of the hospital and FOR PURPOSES OF COMPARISON.

A review of a large number of Annual Reports prompted the suggestion that, if they are to serve the purpose of publicity, more attention must be paid to their compilation in order to improve their attractiveness and promote their appeal. The following points are worthy of careful consideration:

1. Size of Page. 2. Individuality of Cover. 3. Typography. 4. Arrangement of contents. 5. Liberal Use of Illustrations, showing various activities.

It is impossible to submit a standard Annual Report that will serve every hospital or community. We desire to submit an outline of an Annual Report that includes information of prime importance. This outline is not, however, all inclusive and can readily be amplified to meet the needs of individual institutions without sacrificing any essential details.

OUTLINE OF CONTENTS.

1. Table of Contents.
2. Names of Board of Trustees, Officers, Committees, Auxiliary Groups, etc.
3. List of Attending Medical Staff (designating rank and service).
4. Acknowledgment of Gifts. (Form and type as determined by Board of Trustees; inserting prescribed form of Bequest at end of chapter.)
5. Report of President of Board of Trustees.
6. Report of Treasurer:—

Corporation Accounts.—To show present and past years' figures for purpose of comparison.

Statement A—Assets and Liabilities (showing all capital holdings, investments, etc.).

Statement B—Income and Expense.

Operating Accounts.—

Statement A—Income (compare 2 years).

To show in detail the following, according to Scheme 1 or Scheme 2 of the American Hospital Association Standard Chart of Accounts:

SCHEME 1.

Board of Pay Patients
Board of Part Pay Patients
Endowment Earnings
Subsidies
Donations
Miscellaneous

SCHEME 2.

Board of Patients
Operating Room
Delivery Room
Emergency Service
Anesthetics
Board of Special Nurses
X-Ray
Laboratory
Drugs
Dressings
Telephone and Telegraph
Endowment Earnings
Subsidies
Donations
Miscellaneous

Total Hospital Receipts.

Out-Patient Dept.

(Itemize if desirable.)

Total Receipts......

Total Hospital Receipts.

Out-Patient Dept.

(Itemize if desirable.)

Total Receipts......

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Statement B—Expenses.

To show distribution of expenses (compare 2 years) in detail as follows, according to American Hospital Association Standard Chart of Accounts:

Administration; housekeeping; laundry; heat, light and power; maintenance and repair (buildings, etc.); maintenance of grounds (farm); nurses' home; garage; nursing; pharmacy; medical and surgical supplies; medical service; anesthesia; X-ray; special therapy; laboratory; commissary; dietary; social service.

<i>Total Hospital Expenses</i>	\$.....
Out-Patient Department (itemize if desirable).	
<i>Total Operating Expenses</i>	\$.....

Statement C—Resumé of Operating Accounts (2 years' comparison).

	192—	192—
Total Income	\$.....	\$.....
Total Expense .....	.....	.....
Surplus or Deficit.....	\$.....	\$.....

7. Report of Administrative Officer.

We are of the opinion that the first part of this section should contain tables pertaining to certain vital statistics and that the remainder of the section should consist of detailed reports concerning the activities of the various departments of the hospital, such as Nursing, Social Service, Dietary, Pharmacy, Laboratory and the Domestic and Mechanical Departments.

8. Statistical Tables (comparative tables for 2 years).

Table A—Service Rendered.

	192—	192—
Census (last day, previous year).....	.....	.....
Patients Admitted .....	.....	.....
Births .....	.....	.....
Total Patients Treated .....	.....	.....
Patients Discharged .....	.....	.....
Deaths .....	.....	.....
Census (last day present year).....	.....	.....
(Total Days of Treatment Given) or Total Patient Days' Care .....	.....	.....
Normal Bed Capacity .....	.....	.....
Maximum Census (date) .....	.....	.....
Minimum Census (date) .....	.....	.....
Average Daily Census .....	.....	.....
Average Patient Stay in Hospital—Days.....	.....	.....
Number Deaths Within 48 Hours.....	.....	.....
Number Deaths (institutional).....	.....	.....
Mortality Rate (excluding 48 hours' deaths).....	.....	.....
Autopsies—number .....	.....	.....
Operations—Major—number .....	.....	.....
Operations—Minor—number
Total Hospital—Operating Expenses
Per Diem Per Capita Cost

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Out-Patient Department.

Number of Visits to O. P. D.....
Number of New Patients.....
Average Number of Return Visits.....
Total Out-patient Dept. Operating Expense.....	.....	.....
Average Cost per Visit .....	.....	.....

Table B—Financial Classification of Service.

	Admissions		Patient Days	
	192—	192—	192—	192—
Pay Patients
Part Pay Patients
Free Patients
Totals

Table C—Patients denied admission.

	192—	192—
Because of Lack of Accommodation.....
Referred to Non-Staff Physician
Communicable Diseases
Unsuitable (list causes).....
Hospitalization Unnecessary (referred to).....
Total

Table D—Analysis of Service.

Services

192—

	Patients	Days' care	% Total days' care	Patients	Days' care	% Total days' care
Medical						
Surgical						
Obstetric Specialties (list separately)						
Totals.....						

Following these statistical tables, insert the various departmental reports.

9. Report of Attending Medical Staff—

1. A brief review of the work of the attending staff, including lists of special studies made and articles published by the staff—Clinical, Laboratory, X-ray.

In the larger hospitals this section would probably be elaborated to show the various professional departments.

2. Professional Statistics—

The existing medical nomenclatures are not sufficiently comprehensive and so lacking in uniformity that they do not serve with any degree of efficiency. Until a uniform nomenclature can be compiled through the collaboration of all allied interests, your Committee does not feel that any one of the existing systems can be recommended as a standard. Therefore, at this time we do not recommend the publication of professional statistics.

Your Committee believes, however, that a standard medical nomenclature is of sufficient importance to warrant the formation of a committee composed of the various national agencies interested for the special purpose of developing a uniform nomenclature. We understand that the American Public Health Association has taken some action in this direction and recommend that the American Hospital Association should be represented in this work.

We further believe that the use of standard tables of statistics such as those suggested, the filing of such reports with a central agency such as the Hospital Library and Service Bureau and the compilation of the accumulated statistics would make available a volume of accurate data concerning hospitals that would be of great value to the hospital field.

(Signed) A. C. BACHMEYER, M. D., Chairman.
F. E. CHAPMAN,
JOHN F. BRESNAHAN, M. D.

Dr. Bachmeyer presented the second report of the Committee on Hospital Forms and Records, and in connection therewith made the following statement:

Subsequent to our last convention at which the report was accepted and adopted, the committee submitted that report to several firms of accountants having offices generally distributed throughout the United States and Canada. Several of these firms signified their willingness to institute the suggested methods in any hospitals in which they might be called to work. The firms of Marwick, Mitchell & Company and Ernst & Ernst were the two largest, having the most generally distributed offices, covering the entire country fairly well.

DR. WALTER F. CONLEY, Supt. Metropolitan Hospital, Welfare Island, New York City: I move that the committee be continued to make another report, a full report next year.

The motion was seconded and unanimously adopted.

REPORT OF THE COMMITTEE ON THE RELATIONS
BETWEEN HOSPITALS AND STATES AND
CITIES

John E. Ransom, Chairman

Something over a year ago an inquiry was inaugurated concerning the extent and variety of regulation of hospitals and dispensaries by state boards of health, municipal health departments and other official public bodies. As the information began to come in it became apparent that if a summary report was to be worth while the scope of the inquiry would have to be broadened. Not only was there some regulation of hospitals in some states and cities by the regularly constituted health authorities, but there was regulation in various states in relation to the training of nurses, the training of internes, the care of patients under workmen's compensation laws, the granting of state subsidies and the like. Not only has it seemed wise to gain what information was obtainable from the various governmental bodies concerned, but from hospitals as well relative to the nature and effect of whatever regulation obtained. The committee is not prepared to present its report to the Association at this time, but will make a detailed report to the trustees of the Association some time during the coming year.

So far as the data which has already been obtained and tabulated is concerned we might say that the findings of the Committee are largely of a negative nature. States and cities, except in a minority of instances, are not concerning themselves with the problem of regulating hospitals. Yet regulation is in effect in some of our states and cities. Laws affecting hospitals may be passed in almost any state at any session of the legislature. A certain amount of regulation has come or is coming in relation to the training of nurses and internes.

The Committee is of the opinion that the hospitals of a state should be in a position to act intelligently and effectively toward any proposed legislation or the rulings of any of the various state boards affecting hospitals. In order that they can so act two things seem essential. One is the establishment of the already authorized Legislative Service Bureau of the Association. The other is the organization in each commonwealth of a State Hospital Association as a geographical section of the American Hospital Association. The Legislative Service Bureau can make available for the hospitals of any state the experience of those in other states. Through a State Association and only through such organization can the hospitals of a state make use of such service on the part of the Association and secure the

hearing which they desire when matters in which they are vitally concerned are receiving consideration by state legislatures, city councils, state boards and other public bodies.

Mr. Chairman, the Committee desires the acceptance of this tentative report and that it be continued until it can make its final report to the trustees of the Association.

DR. ROBERT J. WILSON: I move that the report be accepted and the committee continued.

The motion was seconded and unanimously adopted.

Adjourned.

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Twenty-fourth Annual Conference, Atlantic City, New Jersey,
September 25, 1922, 8:00 P. M., Mr. E. S. Gilmore
in the Chair—General Session Conducted
by Section on Construction

CHAIRMAN GILMORE: The Bulletin says that the Chairman of each Committee will take five to eight minutes of his speaking time to present concisely the present standards and consensus of opinion of the best hospital policies in their respective fields. Our President told us this morning that there had been a great increase in the amount of building that was contemplated. I remember reading some time ago in "Hospital Management" that over \$3,000,000 in building was contemplated for this year. That would indicate that a great deal of work is under consideration. Naturally, if we are to do that work, it should be done in the very best possible way. I cannot conceive of a hospital being built, now, not as nearly fireproof as possible. There is a great load of guilt upon the conscience of any man who builds a hospital and does not make it fireproof, if it is within his power to do so. A hospital, of course, should have light; every building should have light, but a hospital especially should be lighted in every corner, and one of the leading qualities of an architect should be the ability to provide light in every part of the hospital. A hospital should be so constructed that in the years to come it could be managed at a minimum of expense. Beauty is another thing that should enter into architecture. Let us have a style of architecture that is characteristic of the hospital, and which will meet its purposes. One thing which the hospital management must bear in mind is the comfort of its patients. We know of instances when much money has been spent at the front door, but where the patients spend their lonely hours is a very poverty-stricken looking place. A hospital above all things should be sanitary, else it is not a hospital. A thing to be considered also, now, is plenty of room for laboratories. I remember a few years ago when there was no room, practically, for laboratories. Those days are past. A hospital should be so built that it is capable of extension. A

hospital should grow, and its construction should be such that units can be added.

REPORT OF THE COMMITTEE ON FLOORS

By Frank E. Chapman, Chairman, Director Mt. Sinai Hospital of Cleveland

To the Members of the American Hospital Association:

There is submitted for your consideration, report of the Committee on Hospital Floors, this Committee having been appointed to secure from hospital superintendents and architects a composite opinion of what constitutes the best type of floor, and a further opinion as to which of the present floors on the market meet the various demands of hospital service to the greatest extent.

There being no precedent for this type of study, it was difficult to set up a procedure. In approaching the problem, advice was solicited from as varied sources as possible, including hospital superintendents, architects, professors of applied sciences of universities, and others. The procedure followed and the tests made are the results of the correlation of these consultations.

Questionnaire

At the beginning a questionnaire was developed in collaboration with architects, hospital superintendents and manufacturers of flooring material that attempted to visualize the needs of hospitals and to secure a composite evaluation of the pertinent requirements of various types of hospital service.

The results of this questionnaire were far from satisfactory. Out of the number sent—approximately seventeen hundred—not to exceed ten complete replies were received, with a total response of not to exceed twenty-five. Most of the replies expressed an absolute ignorance of the individual as to the basic requirements of the ideal floor or floors and how to obtain them. However, the expressed evidence of interest in the result of the study but emphasized the need for the analysis.

There is contained herein a compilation of figures obtained from the ten complete replies received, this compilation representing two of the tables (Table A and Table B) of the questionnaire.

There is also included, in order that there may be a permanent, constant basis for discussion, definition of the properties established by the Committee and upon which basis the questionnaires were answered.

Definition of Properties

Appearance

The condition of the floors at least one year after installation and use. (This proviso is made since some floor materials do not show their characteristic defects before that time, and because a comparison of brand-new work would not furnish a true indication of merit.) Appearance is also the "natural" attractiveness of the material, its color range, texture and its decorative value in an architectural sense. The permanency of colors, their non-fading qualities and the non-staining properties are also part of "appearance."

Sanitation

Principally the non-absorbency of the material, the relative ease and effectiveness of ordinary cleaning operations, and its property of showing up dirt, instead of hiding it. In this sense sanitation implies therefore the sum total of a variety of properties which, on the one hand, prevent the accumulation or absorption of microscopic and macroscopic dirt, and on the other, facilitate their easy and complete removal. The condition of the material after a year or more of use should be taken for purposes of proper rating. In considering this property there must be taken into consideration the relative property of joints or joining materials, if any.

Durability

The resistance of the material to time, to temperature and humidity changes, decay, disintegration; the resistance to abrasion incident to hospital traffic, shoe-nails, sharp casters, sand, grit. Uniformity of wear is a vital factor of durability, since the value of a floor depreciates more or less rapidly according to the early or late appearance of worn-out spots in places where a satisfactory walking surface is of most importance. In toilets, the hydro-therapeutic and utility rooms, where standing water is a likely possibility, the probable disintegration or decay is a part of durability. Bond, i. e., the adhesion of the material to its foundation is also assumed a factor of durability. This property of floor materials can be rated properly only from experience, because time is the determining element.

Maintenance

The ease with which the flooring is cleaned, the necessity for care, for surface treatment (such as waxing, etc.), for refinishing, for repairs and the economy of such procedures.

Noiselessness

The property of being non-resonant, non-vibrant.

Comfort

Comfort under foot, as to shock absorbing qualities and temperature, surefootedness, evenness of surface.

Fire Resistance

The property of being non-combustible.

Acid and Alkali Resistance

Immunity from damage by occasional spilling of strong acid solutions and the property of resisting the effect of continuous use of soap, lye, cleaning and scouring compounds, and disinfectants.

Ease of Repair

The possibility of having small repairs made or patching done without upheaval and without the necessity of extensive renewal. Also the appearance of such repairs or patches.

Continuous Availability

The possibility of having facilities available eliminating necessity of shutting down certain rooms for refinishing, etc.

Table A—Hospital Divisions

The following table is an attempt to establish a uniform division of hospital service, in order that there may be a standard of division, and that replies may be given on comparable types of service. It also attempts to establish a uniform requirement for various types of floors and to represent a composite opinion as to what ratio each of these requirements should hold in a consideration of a floor for any particular service.

In rating, consideration must be given to the maximum of demand for any given property and then decision made as to the extent to which that demand enters into the particular service under discussion. To illustrate specifically, as between Private Rooms, Operating Rooms and Service Corridors: Appearance is a most important factor in Private Rooms and would probably be rated at 90 per cent to 100 per cent. In the Operating Room it is important but not to such a great extent and would probably be rated at 50 per cent to 60 per cent. In the Service Corridor it is least important and would be rated at say, 25 per cent. As regards Sanitation, while it is important in a Private Room, the necessity for it as a property, as compared with other services in the hospital, is small and therefore the rating for purposes of this questionnaire would be about as follows: Private Rooms, 15 per cent; Operating Rooms, 100 per cent; Service Corridors, 60 per cent.

COMPOSITE OF TEN ANSWERS	See "Explanation" for Method of Rating								
	Appearance	Sanitation	Durability	Maintenance	Noiselessness	Comfort	Acid & Alkali Resistance	Ease of Repair	Continuous Availability
Private Rooms	90	54	73	67	77	77	35	62	55
Wards	75	70	81	79	79	82	67	67	77
Service Rooms—Utility Service Kitchens, Toilets, Baths	41	89	70	75	36	32	54	62	75
Corridors	83	65	80	86	75	52	43	68	
Service Corridors	29	63	86	73	48	35	49	59	72
Laboratory	34	63	73	66	32	45	77	54	60
Operating Rooms	62	96	86	81	50	51	74	84	67
Out-Patient Department Treatment Rooms	46	84	81	76	47	43	60	59	57
Out-Patient Department Corridors	59	58	78	76	69	37	36	72	74
Kitchens Except Service Kitchens	59	75	80	79	42	48	42	62	69
Offices	74	50	71	65	54	50	24	56	61
Laundry	39	70	87	82	22	41	41	55	67

Table B—Material Designation

This table is a division of various types of flooring into twelve major groupings and an attempt with the same index of requirements to evaluate how closely these various groups of floors approach the ideal.

In rating, one must visualize a flooring that is ideal insofar as the particular property under consideration is concerned, and then determine to what degree the particular flooring measures in terms of percentages as regards the property under consideration. To illustrate: Considering the property of Sanitation, hardwood, by reason of cracks, absorbency, etc., would get a low rating, say 25 per cent; ceramic mosaic tile and slate would get 100 per cent except for the joints, and should be rated at say 85 per cent, 90 per cent, or 95 per cent, dependent upon the opinion

of the individual as to how important a factor this is, *ad infinitum*.

COMPOSITE OF TEN ANSWERS	See "Explanation" for Method of Rating									
	Appearance	Sanitation	Durability	Maintenance	Noiselessness	Comfort	Acid & Alkali Resistance	Ease of Repair	Fire Resistance	Index of Merit
Hardwood Oak, Maple, Birch, Hard Pine	76	30	60	46	52	63	52	59	17	455
Magnesite Composition— Monolithic or in blocks with or without integral Chips	59	75	51	73	63	73	55	46	76	571
Rubber—Rubber Tile Rubber Carpet—Rubber Runner	70	76	62	77	91	91	55	82	35	639
Cork Cork Tile—Cork Carpet	65	57	57	63	93	95	61	77	32	600
Linoleum—Battleship	78	77	68	70	90	92	63	67	41	646
Vitreous Clay Tile White and Colored	81	92	89	92	41	41	90	61	98	685
Ceramic Mosaic Tile White and Colored	83	84	90	84	35	37	89	66	98	666
Marble White and Colored	79	84	77	82	40	42	60	65	94	623
Terrazzo Monolithic or in Blocks	84	88	86	82	38	39	65	46	98	626
Marble Mosaic White or Colored	87	85	85	90	42	43	62	62	98	654
Slate Black or Green	69	91	88	92	53	50	84	75	99	701
Concrete With or Without Hardener	39	69	77	69	35	35	85	52	99	560

Laboratory Tests

By reason of the failure of the questionnaire to produce a volume of replies that would warrant it being considered the composite opinion of the hospital field, it was felt after consulta-

tion that some means of formulating an opinion and basing recommendations should be developed. To that end your Committee developed a series of laboratory tests, the results of which are included in this report and in the exhibits accompanying it. The results of some of these tests cannot be graphically illustrated, and an inspection of the exhibits is prerequisite to a thorough understanding of the recommendations.

It first of all must be definitely understood that your Committee does not presume to suggest that the most ideal laboratory tests are all-conclusive. After all the true test of any commodity is the actual service that it renders under normal conditions of service. These laboratory tests are the result of considerable thought and attempt to determine in an approximate way only the various relative properties of all of the floor samples submitted. The details of the tests are as follows:

Test No. 1—Abrasion

The purpose was to ascertain the relative wearing quality of samples submitted. Comment may be made that the test is more harsh than the usual floor will receive under normal wearing conditions. However, in view of the fact that all samples were submitted to identically the same test, comparisons are fair.

The procedure of the test was that the sample was mounted on a firm foundation and submitted to an emery wheel without pressure other than the pressure of the wheel, for a period of five minutes.

Samples are exhibited showing the results of this test.

Test No. 2—Resistance to Pressure

None of the so-called hard type of floors were submitted to this test. The purpose was to determine the degree of pitting under average hospital service.

The procedure was that samples were placed on a firm foundation and had applied to them (under fifty pounds of pressure), a metal surface similar to that used for protecting table and chair legs, for a period of thirty days.

An Exhibit of the result of this test is submitted.

Test No. 3—Fire Resistance

The purpose was to establish how the material would stand up under the very common practice of throwing lighted cigarettes on the floor.

Completely lighted cigarettes were placed on the sample and permitted to burn out entirely.

Samples of flooring are exhibited showing the results.

Test No. 4—Absorbency

The purpose was to determine the condition of floors after usual cleaning procedures for a period of time. There is a certain group of flooring that if examined at the base after a year or so of service will evidence a degree of filthiness due to absorbency of mop water that would absolutely preclude their use in a hospital.

The procedure was to weigh the sample carefully on an accurate scale, immerse completely in water for 24 hours, remove from water and immediately weigh, and re-weigh at five-day periods for fifteen days, indicating the percentage above normal at each weighing period.

The following table indicates the results:

		Increase in Weight 24 Hrs.	Five Days	Ten Days	Fif- teen Days
7	Adamantile.....	6%	†N		
10	Alundum Art Tile.....	9%	4½%	4½%	†N
17	Linoleum—Household (Armstrong).....	*NI			
22	Asbestone.....	10%	5%	5%	†N
39	Terrazzo.....	*NI			
41	Carborundum Floor Tile.....	5%	1%	1%	†N
50	Duratex.....	5%	†N		
53	Copperstone.....	6%	†N		
56	Crescent Cork Tile Flooring.....	33½%	†N		
57	Linoleum—Inlaid (Armstrong).....	*NI			
58	Cork Tiling.....	*NI			
63	Detroit Brand.....	33½%	†N		
65	Domestic Quarries Tile.....	3%	1½%	1½%	†N
66	Double Diamond Interlocking Rubber Tiling.....	15%	†N		
68	Duraflex.....	*NI			
72	Everlastic Tile.....	20%	†N		
73	Feralun Anti-Slip.....	14%	†N		
77	Flexotile.....	11%	8%	6%	†N
78	Flexstone.....	*NI			
79	Flint Tile.....	3%	3%	†N	
86	Gold Seal Battleship Linoleum.....	*NI			
93	Hexagonal Tile (Vitreous).....	3%	†N		
96	Imperial Sanitary Fireproof.....	17%	9%	†N	
97	Inlaid Sheet Tiling.....	19%	12%	†N	
100	Kellastone.....	25%	11%	7%	†N
101	Keystone.....	*NI			
102	Kompolite.....	24%	5%	†N	
105	Korkstone.....	12%	†N		
109	Limestone—Indiana.....	*NI			
111	Linoleum—Battleship (Armstrong).....	20%	†N		
116	Appalachian Marble.....	*NI			
117	Georgia Marble.....	*NI			
118	Mt. Nebo Marble.....	*NI			
119	Vermont Marble.....	*NI			

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		Increase in Weight 24 Hrs.	Five Days	Ten Days	Fif- teen Days
124	Masterbuilders Concrete with Hardener...	6%	†N
122	Marbleoid	79%	†N	.....	.....
128	Mineral Flooring	200%	150%	†N	.....
131	Nairn's Linoleum (Battleship)	*NI	.....	.....	.....
133	Non-Pareil Cork Tiling.....	66%	†N	.....	.....
140	Protectile	*NI	.....	.....	.....
155	Solry.....	*NI	.....	.....	.....
157	Ceramic Tile	100%	†N	.....	.....
158	Naturized Rubber.....	*NI	.....	.....	.....
160	T. M. B.	*NI	.....	.....	.....
161	Compoloid.....	*NI	.....	.....	.....
164	Touraino Quarries Tile.....	10%	7%	7%	5%
168	Unico Elastic Tile	*NI	.....	.....	.....
170	Usco	*NI	.....	.....	.....
171	Velvetile	*NI	.....	.....	.....
172	Non-Slip Floor Tile (Carborundum).....	33 $\frac{1}{3}$ %	16 $\frac{2}{3}$ %	†N	.....
174	Welsh Quarries Tile.....	3%	3%	3%	†N
178	Zenitherm Art Cork.....	20%	14%	†N	.....
179	†Rub-R-Art.....	33%	33%	†N	.....
182	†Alundum Safety Aggregate Tile.....	3%	†N	.....	.....
183	Linotile	NI	.....	.....	.....
184	Cement—No Hardener	10%	N	.....	.....

*No Increase.

†Normal.

Test No. 5—Acid and Alkali Resistance

This test is self-explanatory and the purpose self-evident.

Samples were submitted to applications of concentrated nitric, sulphuric, hydrochloric, oxalic and acetic acids. No attempt was made to remove solutions applied.

Samples of flooring submitted are exhibited.

Test No. 6—Staining

The purpose and desirability of this test are equally as evident as test No. 5. Floors were submitted to applications of hot grease and blood for staining and applications of methylene blue, carbofuxine and iodine to show capillarity and absorbency.

Samples of floor materials are submitted for inspection.

Choice of Floor

Superficially it would appear that a discussion of floors should take into consideration only the commodity of which the wearing surface is made, but as a matter of fact this commodity is but one angle in the selection of the ideal hospital floor.

The base upon which a floor is to be laid is the predetermining factor in the selection of that floor. In newer types of con-

struction those entrusted with construction are met with probably only one kind of base, either a finished or unfinished concrete slab. There is, however, the problem of old installations requiring the laying of floors over an old wooden base (or one of a comparable nature); any group entrusted with such an installation should know beyond a measure of doubt that the commodity it is selecting will stand up under prevailing conditions.

Cove and Wainscoting

Of equal importance is a discussion of the type of cove, and the type of wainscoting that is to be used. Some floors permit of the installation of both cove and wainscoting as an integral part of the floor itself and of the same material. This is highly desirable under some conditions. The importance of a consideration of this problem is herein emphasized.

Cost

There is of course at all times the problem of first cost that injects itself into a consideration of the hospital floor. This is always a very vital factor in the determination of the flooring to be installed. It would be presumptuous for your Committee to attempt to set up a schedule of floor costs, by reason of the inaccuracy of such a table. The question is merely put at this point to draw attention to several vital factors that enter into the after-cost of any installation.

The floor that requires waxing, polishing, surfacing or surface treating may produce a maintenance cost per yard per year that will more than offset the difference between it and another of a higher initial cost. Therefore it is recommended that consideration be given to the procedures of maintenance and the cost thereof, in determining whether or not the initial cost is high.

Another phase in a determination of flooring installation is the relative expectancy of usage. It is needless to say that a floor which will last fifteen years at an initial cost of \$1.00 a foot is less expensive than a floor that will last five years at an initial cost of fifty cents a foot.

Type of Floor

Were we able to develop a monolithic type of floor that would remain as originally installed, without joints and crevices, there is no question but that that floor would be the ideal floor from the standpoint of Sanitation, Maintenance and Appearance, and if with that type of floor we could secure Comfort and Noiselessness, we would have obtained the ideal hospital floor.

But, as a matter of fact, with expansion and contraction incident to all types of construction, monolithic floors never retain their original form, and as a consequence we have expansion and contraction cracks that must be resurfaced. The problems of Durability, Maintenance, Continuous Availability and Ease of Repair immediately present themselves.

On the other hand, in the installation of other than monolithic types, a determination of the type of the floor must take into consideration the character of the joining material, in order to insure the same degree of Sanitation, Acid and Alkali Resistance and Appearance in the joining material as in the flooring material proper.

A further consideration must determine whether or not the floor is an integral or surface flooring, i. e., whether after a certain period of usage the surface will have been worn down and present a material that is not at all comparable in terms of efficiency with the original installation. There are certain types of flooring that offer this problem.

Recommendations

It is the belief of your Committee that any recommendations of hospital floors must be predicated upon the ratio of evaluations of the pertinent requirements by individual Boards of Trustees. To illustrate specifically, certain types of floors have a relatively high rating in terms of Ease of Repair and Maintenance and a relatively low rating in Appearance, Noiselessness and Comfort. Certain other types have a high rating in Appearance but a relatively low rating in Ease of Repair, Acid and Alkali Resistance, *ad infinitum*. It is therefore incumbent upon the individual group interested in an installation to determine which requisites are paramount in its particular case, and then to select the floor that has an index of requirements highest for its particular need.

There is a growing tendency in hospital installations today, by reason of the apparent economy of maintenance, to make installations of certain of the hard types of flooring. With our modern methods of construction, the problem of noise in a hospital is becoming increasingly obnoxious, and it is incumbent upon those entrusted with the construction of hospital buildings to offset in every way possible the disadvantage incident to concrete and steel construction in this respect, by the installation of flooring materials that will be efficient insofar as Sanitation, Durability, Maintenance, Fire Resistance, Ease of Repair, Continuous Availability, and Acid and Alkali Resistance are concerned, and at the same time to use the material that will reduce

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by absorption or by resilience the noise incident to hospital traffic. Therefore, it is believed that insofar as is possible those parts of the hospital allocated to patient occupancy and corridors should be treated with the so-called soft-type of floors. It is the belief of your Chairman that this same treatment can be given in various parts of the hospital, such as utility rooms, diet kitchens and operating rooms, but it would be presumptuous to make so radical a recommendation even though such installations have been made and are proving preeminently successful.

There is a definite objection to the soft-type of flooring in that it has not the durability of some of the other types. This objection was well founded up until the last few years. There has been, however, a development in this type of flooring that apparently has retained all of the advantages of the former group of soft floors, at the same time has overcome the objection of pitting, and seems to offer a resistance to abrasion which compares very favorably with the hard types of flooring.

Based upon laboratory tests, your Committee submits herein a list of all floor samples submitted with a rating on their relative efficiency under the different tests.

KEY FOR TABLE

A	Excellent	90-99	D	Poor	60-69
B	Good	80-89	E	Very Poor	Below 50
C	Fair	70-79	NT	No Test	

		Abrasion	Pressure	Fire	Absorbency	Acid & Alkali	Staining
7	Adamantile.....	C	NT	A	B	B	E
10	Alundum Art Tile.....	A	NT	A	C	D	C
17	Linoleum — Household (Armstrong).....	D	C	E	A	E	C
22	Asbestone.....	B	NT	B	C	E	D
39	Terrazzo.....	A	NT	A	A	C	E
41	Carborundum Floor Tile.....	A	NT	A	B	C	B
50	Duratex.....	B	NT	B	B	D	B
53	Copperstone.....	B	NT	B	B	C	C
56	Crescent Cork Tile Flooring.....	C	B	E	D	E	E
57	Linoleum—Inlaid (Armstrong).....	D	B	D	A	E	C
58	Cork Tiling.....	C	C	E	A	D	D
63	Detroit Brand.....	E	C	C	C	E	C
65	Domestic Quarries Tile.....	A	NT	A	B	A	A
66	Double Diamond Interlocking Rubber Tiling.....	B	B	B	C	C	B
68	Duraflex.....	E	NT	B	A	B	A

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72	Everlastic Tile.....	D	D	D	C	D	C
73	Feralun Anti-Slip.....	B	NT	A	B	A	D
77	Flexotile.....	B	NT	B	C	E	B
78	Flexstone.....	B	NT	B	A	D	B
79	Flint Tile.....	B	NT	A	B	A	A
86	Gold Seal Battleship Linoleum.....	D	C	D	A	D	C
93	Hexagonal Tile (Vitreous).....	B	NT	A	B	A	B
96	Imperial Sanitary Fireproof.....	C	NT	No	C	D	B
97	Inlaid Sheet Tiling.....	C	B	E	C	E	C
100	Kellastone.....	B	NT	A	D	B	B
101	Keystone.....	E	C	E	A	B	A
102	Kompolite.....	B	NT	A	C	E	B
105	Korkstone.....	B	NT	B	B	E	C
109	Limestone—Indiana.....	B	NT	A	A	C	E
111	Linoleum — Battleship (Arm- strong).....	C	C	E	B	D	C
116	Appalachian Marble.....	A	NT	A	A	E	E
117	Georgia Marble.....	A	NT	A	A	A	E
118	Mt. Nebo Marble.....	B	NT	A	A	C	B
119	Vermont Marble.....	A	NT	A	A	C	E
122	Marbleoid.....	B	NT	B	D	D	D
124	Masterbuilders Concrete with Hardener.....	A-B	NT	A	B	C	D
128	Mineral Flooring.....	B	NT	B	E	D	D
131	Nairn's Battleship Linoleum.....	B	C	E	A	D	C
133	Non-Pareil Cork Tiling.....	B	C	E	C	E	E
140	Protectile.....	C	NT	A	A	C	E
155	Solry.....	A	NT	A	A	B	E
157	Ceramic Tile.....	B	NT	B	C	A	D
158	Naturized Rubber.....	A	A	A	A	B	A
160	T. M. B.....	E	NT	E	A	C	B
161	Compoloid.....	B	NT	B	A	E	B
164	Touraino Quarries Tile.....	C	NT	A	E	A	A
168	Unico Elastic Tile.....	E	C	E	A	D	C
170	Usco.....	C	B	B	A	B	C
171	Velvetile.....	NO	NT	C	A	D	NO
172	Non-Slip Floor Tile (Carbo- rundum).....	C	NT	A	C	A	B
174	Welsh Quarries Tile.....	B	NT	A	B	A	A
178	Zenitherm Art Cork.....	C	A	C	C	D	D
179	Rub-R-Art.....	C	B	D	C	C	B
182	Alundum Safety Aggregate Tile.....	A	NT	A	B	A	C
183	Linotile.....	E	C	E	A	C	C
184	Cement—No Hardener.....	C	NT	A	B	C	E

(See Note),

NOTE—While most of the wood flooring associations submitted samples, no gradings are made for the reason that no sample of wood floor can in any measure approximate actual service conditions. There are conditions under which wood floors may be used in hospitals but they are special ones and do not fall within the scope of this report.

There is also submitted for your consideration and proper evaluation, a recommendation as to the best type of floor for various services.

For self-evident reasons no individual trade names or firms can be mentioned in this report. Your Committee cannot refrain from commenting on the vast difference of efficiency of various floorings of the same general type and it respectfully refers interested individuals to the exhibits of tests illustrative of the differences.

Table of Recommendations

		Soft Type	Hard Type
1	Private Rooms First Choice..... Second Choice	Re-inforced Rubber. Battleship Linoleum	Terrazzo in Blocks Concrete with integral hardener and coloring
	Third Choice.....	Soft Mastic .....	.....
2	Wards First Choice..... Second Choice.....	Re-inforced Rubber. Battleship Linoleum	Terrazzo in Blocks Concrete with integral hardener and coloring
	Third Choice	Soft Mastic .....	.....
3	Service Rooms (see note) Utility, Service Kitchens, Toilets, Baths First Choice.....	Re-inforced Rubber.	Flint Tile (Various Colors)
	Second Choice	Battleship Linoleum	Slate
	Third Choice.....	Soft Mastic.....	Concrete with integral hardener and coloring
4	Corridors First Choice..... Second Choice.....	Re-inforced Rubber. Battleship Linoleum	Terrazzo in Blocks Concrete with integral hardener and coloring
	Third Choice	Soft Mastic.....	.....
5	Service Corridors First Choice..... Second Choice.....	No Recommendation	Asphalt Mastic Concrete with integral hardener and coloring
	Third Choice.....	.....	.....
6	Laboratories First Choice..... Second Choice..... Third Choice.....	Re-inforced Rubber. Battleship Linoleum Soft Mastic.....	Quarry Tile Terrazzo in Blocks Concrete
7	Operating Rooms First Choice..... Second Choice..... Third Choice.....	Re-inforced Rubber Battleship Linoleum Soft Mastic.....	Flint Tile Terrazzo in Blocks Slate

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		Soft Type	Hard Type
8	Out-Patient—Treatment Rooms		
	First Choice.....	Re-inforced Rubber	Terrazzo in Blocks
	Second Choice.....	Battleship Linoleum	Concrete with integral hardener and coloring
	Third Choice.....	Soft Mastic.....	.....
9	Out-Patient Corridors		
	First Choice.....	Re-inforced Rubber	Terrazzo in Blocks
	Second Choice.....	Battleship Linoleum	Concrete with integral hardener and coloring
	Third Choice.....	Soft Mastic.....	.....
10	Kitchens		
	First Choice.....	No Recommendation	Quarry Tile
	Second Choice.....	.....	Terrazzo in Blocks
	Third Choice.....	.....	Concrete with integral hardener and coloring
11	Offices		
	First Choice.....	Re-inforced Rubber	Terrazzo in Blocks
	Second Choice.....	Battleship Linoleum	Concrete with integral hardener and coloring
	Third Choice.....	Soft Mastic .....	.....
12	Laundry and Comparable Services		
	First Choice.....	No Recommendation	Concrete with hardener and coloring

NOTE—On Baths and Toilets ceramic tile can be used to very good advantage, in fact is preferable to flint tile.

Conclusion

In conclusion, your Committee holds for itself no thought of omnipotence. The subject of the ideal flooring is too vast and too important to be definitely decided by any one group. The report is the result of more or less continuous study over a period of two years. It has entailed rather arduous labor that has been cheerfully expended, not only because of the momentousness of the question but because it has visualized such a great ignorance of the problem under discussion and the necessity for more and more study of the question.

Your Committee would be remiss if it did not express its appreciation of the kind co-operation offered by the various flooring manufacturers, in submitting samples, to many hospital superintendents, architects and others who have given of their thought in the compilation of this report.

Addenda

There is submitted herewith, first, a list of all samples of flooring that were submitted to laboratory test, and, second, a

Samples of Flooring Tested

No.	Trade Name	Manufacturer	Address
7	Adamantile	National Mosaic Tile Co.	Mobile, Ala.
10	Alundum Art Tile	Norton Company	Worcester, Mass.
17	Linoleum, Household (Armstrong)	Armstrong Cork & Insulation Co.	Pittsburgh, Pa.
22	Asbestone	Franklyn R. Muller & Co.	Waukegan, Ill.
39	Terrazzo	Cleveland Builders Supply Co.	Cleveland, Ohio
41	Carborundum Floor Tile	Synthetic Tile Company	St. Louis, Mo.
50	Duraflex	National Builders Company	Cleveland, Ohio
53	Copperstone	The Copperstone Products Co.	Toledo, Ohio
56	Crescent Cork Tile Flooring	United Cork Companies	New York City
57	Linoleum, Inlaid (Armstrong)	Armstrong Cork & Insulation Co.	Pittsburgh, Pa.
58	Cork Tiling	Armstrong Cork & Insulation Co.	Pittsburgh, Pa.
63	Detroit Brand	Albert Grauer & Co.	Detroit, Mich.
65	Domestic Quarries Tile	Associated Tile Manufacturers	Beaver Falls, Pa.
66	Double Diamond Interlocking Rubber Tiling	New York Belting & Packing Co.	New York City
68	Duraflex	Duraflex Company	Baltimore, Md.
72	Everlastic Tile	David E. Kennedy Company	New York City
73	Feralun Anti-Slip	Carborundum Co.	New York City
77	Flexotile	Flexotile Floor Co.	Rockford, Ill.
78	Flexstone	Flexstone Flooring Co.	Columbus, Ohio
79	Flint Tile	Associated Tile Manufacturers	Beaver Falls, Pa.
86	Gold Seal Battleship Linoleum	Congoleum Company	Philadelphia, Pa.
93	Hexagonal Tile (Vitresous)	Associated Tile Manufacturers	Beaver Falls, Pa.
96	Imperial Sanitary Fireproof	Imperial Floor Company	Rochester, N. Y.
97	Inlaid Sheet Tiling	The B. F. Goodrich Company	Akron, Ohio
100	Kellastone	National Kellastone Co.	Chicago, Ill.
101	Keystone	Russelloid Company	Harrisburg, Pa.
102	Kompolite	General Kompolite Co.	Long Island City, N. Y.
105	Korkstone	Williams-Wendt Co.	Chicago, Ill.
109	Limestone, Indiana	Indiana Limestone Quarrymen's Association	Bedford, Ind.
111	Linoleum, Battleship (Armstrong)	Armstrong Cork Co.	Lancaster, Pa.
116	Appalachian Marble	Appalachian Marble Co.	Knoxville, Tenn.
117	Georgia Marble	Georgia Marble Co.	Tate, Ga.
118	Mt. Nebo Marble	Mt. Nebo Marble Co.	Salt Lake City, Utah
119	Vermont Marble	Vermont Marble Co.	Proctor, Vt.
122	Marbleoid	The Marbleoid Company	New York City
124	Masterbuilders Concrete with Hardener	Master Builders Company	Cleveland, Ohio
128	Mineral Flooring	Phila. Mineral Flooring Co.	Philadelphia, Pa.
131	Nairn's Battleship Linoleum	Nairn Linoleum Co.	Newark, N. J.
133	Non-Pareil Cork Tiling	David E. Kennedy Company	New York City
140	Protectile	B. Ridgeway & Sons	Meshoppen, Pa.
155	Solry	Solry Tile Mfg. Co., Inc.	New York City
157	Ceramic Tile	Associated Tile Manufacturers	Beaver Falls, Pa.
158	Naturized Rubber	Stedman Products Co.	So. Braintree, Mass.
160	T. M. B.	Thomas Moulding Brick Co.	Chicago, Ill.
161	Compoloid	Trenton Mineral Flooring Co.	Trenton, N. J.
164	Touraino Quarries Tile	Associated Tile Manufacturers	Beaver Falls, Pa.
168	Unico Elastic Tile	United Cork Flooring Co.	New York City
170	Usco	United States Rubber Co.	New York City
171	Velvetile	Magnesite Products Co.	Chicago, Ill.
172	Non-Slip Floor Tile (Carborundum)	Carborundum Company	New York City
174	Welsh Quarries Tile	Associated Tile Manufacturers	Beaver Falls, Pa.
178	Zenitherm Art Cork	Zenitherm Company	New York City
179	Rub-R-Art	International Mills Co.	New York City
182	Alundum Safety Aggregate Tile	Norton Company	Worcester, Mass.
183	Limotile	Armstrong Cork Co.	Lancaster, Pa.
184	Cement—No Hardener	Cleveland Builders Supply Co.	Cleveland, Ohio

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complete list of all firms who were solicited to submit samples. The second list is starred to show firms whose samples were incorporated in the exhibit. Those who are not starred either did not respond, do not now manufacture floor material, samples were received too late, or not of sufficient number to be indicated in the report.

Flooring Manufacturers

No.	Name of Manufacturer	Address	Trade Name of Floor
* 73 *172	American Abrasive Metals Co	New York City	Feralun Vulcalun Carborundum
9	Alpha Portland Cement Co.	Easton, Pa.	Alpha Cement
139	American Flooring Co., Inc.	New York City	Plastic Linoleum
99	Amer. Mason Safety Tread Co.	Lowell, Mass.	Karbolith Flooring
129	American Monolith Co.	Milwaukee, Wis.	Monolith Comp. Flooring
137	The American Perfectile Co.	Philadelphia, Pa.	Perfectile
47	American Pottery Corp.	Trenton, N. J.	China-By-Product Tile
173	American Walnut Mfrs. Assn.	Chicago, Ill.	Walnut
*116	Appalachian Marble Co.	Knoxville, Tenn.	Marble
13	The Arco Company	Cleveland, Ohio.	Arco Solidizer
14			Arco Vitrograin
15	Arkansas Soft Pine Bureau.	Little Rock, Ark.	Arkansas Soft Pine
* 17	Armstrong Cork & Insulation Co.	Pittsburgh, Pa.	Linoleum (Household)
* 57			Linoleum (Inlaid)
* 58			Cork Tiling
*111 *183	Armstrong Cork Company.	Lancaster, Pa.	Battleship Linoleum Linotile
20	Asbestolith Mfg. Co.	New York City	Asbestolith
* 79	Associated Tile Manufacturers.	Beaver Falls, Pa.	White Flint Tile
* 93			Green Flint Tile
*157			Vitreous Hexagonal Tile
*164			Square Ceramic Tile
*174			Touraino Quarries
* 65			Welsh Quarries
.....			Domestic Quarries
26	Atlas Floor Co.	New York City	Atlas Composition Floor
2	The Barber Asphalt Co.	Philadelphia, Pa.	Acidproof Mastic
84			Genasco Positive Seal Felt
85			Genasco Vulcanite Asphalt Mastic

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No.	Name of Manufacturer	Address	Trade Name of Floor
52	Wm. L. Barrel Co.	New York City.	Con-Ser-Tex
31	Beaver Tile & Specialty Co., Inc.	New York City.	Be-Ver Colored Cork Composition Tile
32			Be-Ver Natural Cork Tile
8	E. N. Biegler Mfg. Co.	Chicago, Ill.	Alamada Cork Composition
28			Bag-Oleum Ready Mix
74			Fiber Mastie Floor Composition
103			Kork-Oleum Flooring
33			Biegler's Masoleum
34			Biegler's Non-Slip Plastic Tile
35			Biegler's Rock Asphalt
148			Rubber Flooring
36	The Billings-Chapin Co.	Cleveland, Ohio.	Bilehaco Floor Coating
37	The Birch Manufacturers.	Oshkosh, Wis.	Birch
30	John Boyle & Co., Inc.	New York City.	Bayonne Deck Cloth
27	Builders Material Supply Co.	New York City.	B. M. S. Monolithic Cement Floor
143	California Redwood Assn.	San Francisco.	Redwood
38	Carter Bloxonend Flooring Co.	Kansas City, Mo.	Bloxonend
165	Cheney & Co., Inc.	New York City.	Troegerlith Compos. Flooring
* 39	Cleveland Builders Supply Co.	Cleveland, Ohio.	Terrazzo
* 184			Cement—No Hardener
* 49	Compoloid Products Co.	Wilkes-Barre, Pa.	Compoloid Compos. Flooring
* 86	Congoleum Company.	Philadelphia, Pa.	Gold Seal Battleship Linoleum
* 53	The Copperstone Products Co.	Toledo, Ohio.	Copperstone
54			Copperstone Composition Floor
59	The Crooks-Dittmar Co.	Williamsport, Pa.	Cromar
61	Curtis Service Bureau.	Clinton, Iowa.	Curtis Woodwork
6	E. E. Davis Co.	Chicago, Ill.	Adamantile
19			Art Cork Tile
45			Cement Floors—Colored
46			Cement Floors—Hardened
48			Colored Elastic Cork Tile
104			Korkoleum Mastie Floors
112			Magnesite Composition Floors
132			Natural Cork Tile
145			Rock Asphalt
149			Rubber Tile
176			Wood Block
180	Douglass-Lynch, Inc.	Boston, Mass.	Linoleum
67	Dreadnaught Flooring Co.	New York City.	Dreadnaught Interlocked Sectional Flooring
* 68	Duraflex Company.	Baltimore, Md.	Duraflex Mastie Floors
71	Everlasbestos Flooring Co.	Rochester, N. Y.	Everlasbestos Flooring
76	Flat-Slab Patents Co.	Chicago, Ill.	Flat-Slab Flooring
* 77	Flexotile Floor Co.	Rockford, Ill.	Flexotile
16	The Flexstone Constr. Co.	Columbus, Ohio.	Armorite
* 78	Flexstone Flooring Co.	Columbus, Ohio.	Flexstone
146	J. S. Fulton Company.	Chicago, Ill.	Rock Asphalt Mastie Floors
81			Fulton 1870 Brand Acidproof Mastie
82			Fulton 1870 Brand Asphalt Mastie
126	General Compolite Company.	Long Island City, N. Y.	Mastolith
60	General Fireproofing Co.	Youngstown, Ohio.	Crystalrox
83			G. F. Elastic Tiling

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No.	Name of Manufacturer	Address	Trade Name of Floor
*117	Georgia Marble Company	Tate, Georgia	Marble
87	The B. F. Goodrich Co.	Akron, Ohio	Goodrich Interlocking Rubber Tiling
* 97			Inlaid Sheet Tiling
88	Goodyear Tile & Rubber Co.	Akron, Ohio	Goodyear Interlocking Rubber Tiling
5	Granitex Co., Inc.	New York City	Adamantex
* 63	Albert Grauer & Co.	Detroit, Mich.	Detroit Brand
75			Filipite Brand
142	Gum Lumber Mfrs. Assn.	Memphis, Tenn.	Red Gum
92	Hachmeister-Lind Chemical Co.	Pittsburgh, Pa.	Helicomp Magnesite Composition Flooring
23	Hastings Pavement Company	New York City	Asphalt Block
94	Hydrex Asphalt Products Corp.	New York City	Hydrex Compound Flooring
* 96	Imperial Floor Company	Rochester, N. Y.	Imperial Sanitary Fireproof Flooring
109	Indiana Limestone Quarrymen's Assn.	Bedford, Ind.	Limestone
*179	International Mills Co.	New York City	Rub-R-Art
107	The Jennison-Wright Company	Toledo, Ohio	Kreolite Block Floors
24	Johns-Manville Company	New York City	Asphalt Industrial Flooring
18	David E. Kennedy, Inc.	New York City	Arrowlock Elastic Tiling
29			Battleship Mastic Flooring
* 72			Everlastic Tile
*133			Nonpareil Cork Tiling
69	Kreider Bldg. Material Co., Inc.	New York City	Durastone
42	Lehigh Portland Cement Co.	Chicago, Ill.	Cement
130	The Lehon Company	Chicago, Ill.	Mule-Hide Mastic Flooring
90	The Living-Stone Co.	Baltimore, Md.	Granolithic Top Finish
*118	Mt. Nebo Marble Co.	Salt Lake City	Marble
*171	Magnesite Products Co.	Chicago, Ill.	Velvetile
113	Mahogany Association	New York City	Mahogany
114	Maple Flooring Mfrs. Assn.	Chicago, Ill.	Maple
121	The Marbleithic Co.	Dayton, Ohio	Marbleithic
*122	The Marbleoid Company	New York City	Marbleoid
115	Mar-Sla Mfg. Co.	Hubbard, Ohio	Mar-Sla
123	Mas-Oleum Floor Mfg. Co.	Chicago, Ill.	Mas-Oleum
*124	Master Builders Company	Cleveland, Ohio	Master Builders Concrete Hardener
12	Matthews Bros. Mfg. Co.	Milwaukee, Wis.	Architectural Woodwork
* 22	Franklyn R. Muller & Co.	New York City	Asbestone
*131	Nairn Linoleum Co.	Newark, N. J.	Nairn's Linoleum (Battleship)
* 50	National Builders Co.	Cleveland, Ohio	Duralex
89	National Building Granite Quarries Company	Boston, Mass.	Granite
95	National Hygienic Floor Co.	St. Louis, Mo.	Hygenia
* 7	National Mosaic Tile Co.	Mobile, Ala.	Adamantile
64			Diamantile
*100	National Kellastone Co.	Chicago, Ill.	Kellastone
* 66	N. Y. Belting & Packing Co.	New York City	Double Diamond Interlocking Rubber Tiling
135	North Carolina Pine Assn.	Norfolk, Va.	North Carolina Pine
*182	Norton Co.	Worcester, Mass.	Alundum Safety Aggregate Tile
* 10			Alundum Tile
136	Oak Flooring Mfrs. Assn.	Chicago, Ill.	Oak
43	Pennsylvania Cement Co.	New York City	Cement
138	Petro-Pulp Floor Company	Kansas City, Mo.	Petro-Pulp Compos. Flooring
*128	Phila. Mineral Flooring Co.	Philadelphia, Pa.	Mineral Flooring

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No.	Name of Manufacturer	Address	Trade Name of Floor
51	Portland Cement Assn	Chicago, Ill.	Concrete Cement
44			
*102	General Kompolite Co.	Long Island City, N. Y.	Kompolite
144	Rezilite Mfg. Co.	Chicago, Ill.	Rezilite
*140	B. Ridgeway & Sons	Meshoppen, Pa.	Protectile
40	The Rodd Co.	Pittsburgh, Pa.	California Redwood Block Floors
181	Roldan Cammarata Concrete Tile Co.	Boston, Mass.	Concrete Floor Tile
*101	Russelloid Company	Harrisburg, Pa.	Keystone Brand Floor Covering
127	Sandusky Portland Cement Co.	Cleveland, Ohio	Medusa Cement Paint
4	Schillinger Construction Co.	Chicago, Ill.	Acid Resisting Mastic Flooring
21			Asbestolithic Mastic
110			Lino. Mastic Flooring.
125			Mas-Tile Floors
147			Rock Asphalt Mastic Floor- ing
120	Frank A. Seifert Elastic Relief	St. Louis, Mo.	Marble Mosaic
*155	Solry Tile Mfg. Co., Inc.	New York City	Solry
108	L. Sonneborn Sons, Inc.	New York City	Lapidolith
62	Southern Cypress Mfrs. Assn.	New Orleans, La.	Cypress
156	Southern Pine Association	New Orleans, La.	Southern Yellow Pine
55	Southern Wood Preserving Co.	Atlanta, Ga.	Croopine Wood Block Floors
3	Special Service Flooring Corp	New York City	Acidproof Mastic
25			Asphalt Mastic
70			Eoleum
134			Non-Slip Tile
151			Servicetyle
152			Servicite
153			Servoleum
106	Standard Varnish Works.	New York City	Koverflor
*158	Stedman Products Co.	So. Braintree, Mass.	Stedman Naturized Flooring
150	Junius N. Stone Corp.	New York City	Rubberstone Flooring
* 41	Synthetic Tile Co.	St. Louis, Mo.	Carborundum Floor Tile
*160	Thomas Moulding Brick Co.	Chicago, Ill.	T. M. B. Flooring
163	The Tileine Co.	New York City	Tileine
*161	Trenton Mineral Flooring Co.	Trenton, N. J.	Compoloid
166	Troegerlith Tile Co.	New York City	Troegerlith Cork Tiling
167			Troegerlith Rubber Tiling
80	Tropical Paint & Oil Co.	Cleveland, Ohio	Floorkote
* 56	United Cork Companies	New York City	Crescent Cork Tile Flooring
*168			Unico Elastic Tile
*170	United States Rubber Co.	New York City	Usco Flooring (Sheet Rubber)
169	The Unitle Co.	Columbus, Ohio	Unitle
154	Universal Brick & Tile Co.	Pittsburgh, Pa.	Slag-Tile
*119	Vermont Marble Co.	Proctor, Vt.	Marble
98	Waldo Brothers Bond Co.	Boston, Mass.	Jasperite
141	Warren Brothers Co.	New York City	Puritan Sanitary Flooring
162			Terrazolite Sanitary Flooring
1	Warren Chemical Division	New York City	Acid-Proof Anchor-Rock
11	(The Barrett Company)		Asphalt
			Anchor-Rock Asphalt
175	White Pine Bureau	St. Paul, Minn.	White Pine
*105	Williams-Wendt Co.	Chicago, Ill.	Korkstone
91	Wisconsin Land & Lumber Co.	Hermansville, Mich.	Hardwoods
159	Wood Mosaic Co.	New Albany, Ind.	Steel-Woven Oak Flooring
172	Wood Mosaic Flooring & Lbr. Co.	Rochester, N. Y.	Wood Mosaic
*178	Zenitherm Company, Inc.	New York City	Zenitherm Art Cork Flooring

CHAIRMAN GILMORE: It is very evident from this report that Mr. Chapman and his committee have put in a vast deal of labor and time in getting it up. I feel that they are entitled to the gratitude of every one of us. His paper is now open for discussion.

EDWARD F. STEVENS, Architect, Boston: The subject of floors is one in which we are all vitally interested. It is a subject that has been always uppermost in every discussion of hospitals wherever one meets hospital people. I remember in going over one of the great London hospitals and meeting the superintendent, the first thing he asked me after being introduced was, "What is the best floor in your country?" I feel that much depends upon the care of the floor. The floors in one institution will last and be in splendid condition for years, while the same floor in another institution seems to go to pieces. I have seen linoleum laid for ten, twelve or fifteen years in perfect condition, while in another institution in three or four months it goes to pieces. Now we cannot condemn one floor because in one case it happened to go bad, while in another case it is all right. Then there is the question of cost. If we can get a floor for 50c a foot that will last for twenty-five years, it is surely better than one for 25c a foot that will only last ten years. The upkeep is another very important point. Personally I am very much interested in the report and feel that the committee have done the hospitals a great service.

MR. BUTLER, of New York: First, I am one of those who did not send in a reply to Mr. Chapman's questions. I have it here with me; I studied it a great deal, but I was almost too scared by it to answer. I took it up from time to time, but found that so often I had to change my answers that I was afraid to send anything in. We are using terrazzo to a considerable extent now with brass strips; which seems to obviate one of the difficulties encountered with ordinary terrazzo, which you cannot patch. The terrazzo with brass strips seemed to get around that difficulty. I think this report is going to be of great value. I believe it is only the first of a series.

MR. CHAPMAN: Mr. Stevens called attention to the fact that floors go to pieces, and lays that to the lack of care or the improper care of floors. I think I am going to agree with him in part only; I believe the reason for a comparable type of floor, showing relatively different usage or wear in the two different institutions is because of the method of laying that floor, and I have recommended, and I recommend to you now, that the manufacturers of flooring material stop selling flooring by the yard and sell it by years of service. In other words, instead of selling

their commodity on the store floor, they sell it to you on your floor; that is where you are going to use it. If you will get the manufacturer of the merchandise to lay that floor for you, or get it laid by him under his control, you will get a floor that is laid properly. That is where you are having a lot of your floor trouble.

P. W. SWERN, Architect, Chicago: I would like to ask Mr. Chapman if he has developed a standard specification on his terrazzo? He has made a statement that some terrazzo was good and some bad, and we, as architects, know that it all depends on the specifications of the terrazzo, and I would like to know if there is any data on those samples?

MR. CHAPMAN: There are several specifications for terrazzo on the market. I think their efficiency varies in various geographical locations, depending upon the type and percentage of marble chips you use, but I am not competent to draw a specification.

MR. SWERN: I am wondering if it would not be a big advantage to the Hospital Association if such a specification by your Committee were given to them, because if they just allow the word "terrazzo" floor to be used I agree with you it is a game of luck.

MR. CHARLES F. OWSLEY, Architect, Cleveland and Youngstown, O.: I notice under Table A—Hospital Divisions, that sanitation of certain rooms is rated very low. For instance, in private rooms the Committee has established the rating for sanitation at 54%. The rating of the division in wards is a little higher. It seems that these two classifications or divisions of the hospital are probably the two places where people are impressed by their surroundings, and according to Table A of the Committee's report, sanitation is rated very low and appearance high. The Committee apparently has passed up the question of wood flooring almost entirely. I am one of the old-fashioned type of architect, perhaps, who still believes in wood floors for certain rooms. The bugaboo or obsession with reference to the proper hospital floor arose from the standpoint of sanitation; we wanted to get rid of cracks; we wanted the whole hospital building to be absolutely a sanitary structure; we wanted the whole building to be like a bathtub. I believe that this is impossible to accomplish in using any type of floor. For instance, the ideal type of a terrazzo floor, which is the first recommendation in most of the divisions of the Table of Recommendations of the Committee with respect to a hard type of flooring, is in the block form; this type of floor calls for joints, and we have the same joints in all composition floors, because they should be divided

in squares or other geometric forms to avoid cracks from the expansion and contraction, forces which we cannot entirely control. Many of you know that this is true by experience. Therefore, in the two types of hospital divisions that I have referred to it would be interesting to me, at least, as it might be to others, to know what attitude the Committee had in regard to the use of wood flooring.

MR. CHAPMAN: I cannot visualize a condition under which any hospital should use wood floors for general purposes. The lack of continuous availability would rule them out immediately. Any wood floor I know of has to be resurfaced at least twice a year, and that procedure is a lengthy one and is very expensive. The question of fire hazard in some States is also to be considered. In the state Mr. Owsley comes from they would not permit him to use wood floors.

In reply to that part of Mr. Owsley's comment as to the relatively low rating of sanitation on private rooms and wards, I call your attention to the definition of sanitation, and I believe if that definition is correct it should be lower on private rooms and wards than in the rest of the institution. Under the definition, the rating for sanitation depends principally on the non-absorbency of material, the relative ease and effectiveness of ordinary cleaning procedures, and its property of showing dirt instead of hiding it.

A MEMBER: Is there any recommendation about the thickness of these floors after being laid?

MR. CHAPMAN: That depends entirely on your foundation. If your foundation is right and you use deadening felt, I see no reason why, with the right floor, you should not go down to a sixteenth or an eighth of an inch; others would not be efficient if you had flooring a foot thick.

MR. MACKENZIE, of Memphis, Tenn.: I want to say a word on the subject of terrazzo. My experience with it has not been over a long period of years. I notice that several speakers have spoken of the ideal terrazzo as the terrazzo made in blocks, and I wonder what you mean when you speak of terrazzo made in squares as large as ten or twelve feet. In a hospital of about two hundred beds our floors were terrazzo entirely, except those in the operating room, about six inches square terrazzo, and in a building 240 feet long there was not even a joint in it lengthways, and in a year's observation there were no cracks or trouble of any kind, except that it was impossible apparently to clean the so-called sanitary surface of a terrazzo floor.

MR. CHAPMAN: Answering the last speaker, the block I was talking about was a six to eight inch block with copper strips.

Might I say to you that if you have a 240-foot building and no expansion and contraction joints you'd better shake hands with yourself, you are lucky.

CAPT. HARRY H. WARFIELD, Supt., Carson C. Peck Memorial Hospital, Brooklyn, N. Y.: We have terrazzo floors throughout our corridors, wards and semi-private rooms, made in blocks about six feet square. They always look well, are easy to keep clean and I don't think any other flooring would be as satisfactory. In our private rooms we have hardwood oak floors. They are all right, and we like them better than any composition flooring I know of. Our plan is to have them dressed or refinished at least once a year—not necessarily scraped, unless they need it—refinished in the sense that they are well cleaned, shellacked and varnished. We also have them cleaned and rewaxed every time a patient leaves a room. In this way they are always in good condition.

MR. CHAPMAN: How long does it take to re-finish a room?

CAPT. WARFIELD: About two days.

MR. CHAPMAN: What is the rate for your rooms?

CAPT. WARFIELD: \$6, \$8 and \$10 a day.

MR. CHAPMAN: In other words, it costs you \$16 a day over and above cost of maintenance for wood floors?

CAPT. WARFIELD: Well, it is done at a time when there is a little let-up in the number of patients, in August and September. When I speak of re-finishing when a patient leaves a room, that only takes a couple of hours.

MR. CHAPMAN: But I mean your yearly re-finishing, assuming your rooms were full, that is rather expensive.

CAPT. WARFIELD: Yes, if the rooms were full at all times. May I add that in my opinion there is no flooring as yet that will take the place of high grade oak for private rooms in hospitals.

MR. OWSLEY: From previous remarks on the successful use of wood flooring, I would like to say a word further. The question of re-finishing of floors as to the availability and the maintenance, is somewhat in favor of the wood floor, although the report would not indicate this fact. The practical facts in the matter are, that a wood floor can be re-finished at any time that the superintendent of the hospital desires it to be re-finished, or immediately after a room is unoccupied or available for re-finishing, because any skilled carpenter or painter can be had at once, or even may be in the continual employ of the hospital. On the other hand, to secure, a good composition floor of any kind, or a good terrazzo floor, requires that it be laid by an expert usually in the employ of the manufacturers themselves; they will

not contract for their floor, nor will they guarantee it, unless their own skilled workmen install the same. Therefore, if you attempt to patch or re-finish any of the composition or terrazzo floors with which I am familiar, you must send for the man ahead of time and await his convenience in arriving. He usually arrives when you least expect him, making it fairly impossible to schedule the re-finishing of a room having a composition floor, and you may find that you have lost the occupancy and income from the use of the same. Now I grant that a wood floor is not fireproof, but it is not prohibited in our state or most any other state.

CHAIRMAN GILMORE: In my judgment a hardwood floor is an abomination in the sight of the patient and an ever present expense in time of trouble. Twenty years ago in one of the first meetings of the American Hospital Association the question was raised, what is the best kind of floor? And I suppose twenty years from now that same question will come up, so I think it would be a most excellent thing if we could continue this committee.

The next paper is a report of the Exposition Committee on Buildings, Construction, Equipment and Maintenance, by Dr. S. S. Goldwater.

REPORT OF THE COMMITTEE ON BUILDINGS—CONSTRUCTION, EQUIPMENT AND MAINTENANCE

The committee has been instructed to summarize briefly existing policies and tendencies in regard to the construction, equipment, and maintenance of buildings designed for the care of the sick.

The coupling of equipment with construction, and of maintenance with both, is perfectly logical. The mechanical equipment of a hospital building is inseparable from its construction, and notably affects the cost of construction. While the extensive use of mechanical equipment increases the cost of maintenance of the building, considered merely as a building, mechanical equipment, if intelligently chosen and properly installed, tends by simplifying and improving service to decrease the cost of administering the hospital. For this reason the original cost of serviceable equipment should not be regarded as a deterrent to its introduction.

The plans and specifications of a hospital represent a choice of means, and may be said to be an expression of the opinion of the building committee, its technical adviser (superintendent or consultant, as the case may be), and the architect. In the planning of a hospital building, as well as in the writing of the

specifications, experience should have a voice. The items which appear in the financial reports of hospitals under the head of "house and property expenses," and all other items of expenditure which are affected by the character of the hospital building and its equipment, should be carefully and repeatedly analyzed by those who are engaged in hospital construction, for in this way only is it possible to arrive at an understanding of the ultimate or service value of the materials used.

This committee has been requested to speak of the "best policies," of the "consensus of opinion," and of "present standards" in the special field of construction.

Since planning logically precedes construction and is bound up with it, it cannot very well be ignored in this report, but the briefest mention only can be made of this phase. Among the standards, practices, and tendencies observed in current hospital planning, the following are deemed worthy of mention:

a. A growing disposition to inquire into the needs of a community before making plans, thus avoiding wasteful duplication and overlapping. The committee strongly endorses such inquiries.

b. A marked tendency toward concentration in planning, the object of which is to economize in the use of building materials and to facilitate medical, administrative, nursing and domestic service.

c. The development of general plans through the putting together of the plans of individual departments, each conceived from the standpoint of precise needs; in other words, scientific, synthetic, technical planning rather than the adoption of loosely conceived general schemes, dominated by conceptions of architectural design. With the new point of view, architects generally are now in accord.

d. Theoretical emphasis on flexibility, in anticipation of future expansion as well as of changing needs (with lapses in practice which, unfortunately, are all too frequent).

e. A widespread demand for convenient facilities for outdoor treatment. In practice there is observable a shifting of emphasis from roof to veranda as a means of outdoor treatment, and the consequent lifting of the taboo on pitched roofs, which while not universally approved are reappearing in important and picturesque multi-storied hospital buildings.

f. A demand for a reasonable measure of privacy for patients occupying semi-private and ward beds, resulting in the subdivision of a considerable part of the large open ward of

former days into small wards, individual cubicles, or even small individual rooms.

g. A more liberal use of plumbing fixtures, especially of individual waterclosets in connection with private rooms, and of washbasins in both wards and private rooms. There is not, however, a proportionate increase in the number of private baths.

h. The use of single rooms in nurses' homes for both graduate and pupil nurses.

i. An increase in the allotment of space in nurses' homes for teaching purposes (lecture rooms, demonstration rooms, science laboratories, study rooms, libraries, etc.).

j. Efforts to obtain central and accessible locations for diagnostic laboratories and for treatment rooms of every description.

k. The reservation of considerable office space for social service and "follow-up" work.

l. Failure on the part of many medical staffs to urge the allotment of adequate space for out-patient work.

m. A diminishing use of small dumbwaiters for food service, large service elevators being required for the more modern types of heated or insulated food carriages.

n. The reconsideration of the whole question of centralized versus decentralized nursing service, some experimenters being disposed to transfer a part of the fixed equipment of pantries, sink rooms, utility rooms, and chart rooms away from the traditional nursing station of the individual ward unit, and to locate this equipment centrally to the whole hospital. These measures are based on a theory of administration which involves the separation of nursing service into two parts: first, actual bedside work, and second, the preparation of utensils, dressings, medications, and indeed of all materials and supplies which are used at the bedside or administered to the patient.

o. A feeling that serious efforts should be made toward the standardization of fixed equipment. Standardization is favored by the open-mindedness, the disposition to investigate, and the readiness to imitate, which may be said to be characteristic of the American mind. It is also favored by the growing recognition of hospital planning as a highly complex special art or discipline. Forces which impede or obstruct standardization are indefiniteness of purpose on the part of hospital boards, the employment of inexperienced hospital designers, the desire of hospital architects, superintendents, and consultants to achieve distinctive results, and strong commercial competition among manufacturers of building material and equipment.

Turning now to construction and equipment proper, the following are noted as prevailing opinions, practices, or tendencies:

1. Insistence on fireproof construction, with or without legal compulsion.

2. Simplicity and economy in exterior design and finish.

3. A certain hesitancy in the use of unmodified ferro-concrete construction on account of the dangers of excessive sound transmission.

4. The general disappearance of the wood floor and a lack of unanimity concerning the most satisfactory substitute for it (this subject is exhaustively dealt with in the report of another committee).

5. The occasional substitution of solid plaster for hollow tile in the construction of interior partitions.

6. Decided preference for metal interior trim, which, however, is frequently omitted in order to reduce slightly the cost of construction.

7. The use, in special interior locations, of sound absorbing material and of soundproof doors.

8. An increasing demand for built-in features and specialties, such as specimen closets, drying closets, garbage closets, clothes chutes, fire hose cabinets, supply and instrument cabinets, etc.

9. The widespread use of double hung sash in window construction, together with the constant improvement of devices for increasing the area of ventilation in summer and for facilitating window cleaning.

10. The substitution of interior or enclosed fire stairs for exterior fire escapes.

11. The omission of transoms over private room doors (cross ventilation being obtained by means of secondary dwarf or screen doors of light construction).

12. The use of brackets or wall supports in place of legs or floor supports for fixtures.

13. The installation of independent electric generating plants in nearly all except the smallest hospitals.

14. The more frequent use of petroleum as fuel.

15. Heating by direct radiation in preference to indirect.

16. Increasing use of refrigerating systems in hospitals of moderate size.

17. Attempts to eliminate overhead skylights for the natural lighting of operating rooms, and the substitution of enormous areas of vertical north lights.

18. The use of secondary emergency lighting (in addition to the standard electric lighting) for the artificial illumination of operating rooms.

19. The willingness of laboratory workers to accept artificial lighting for microscope work.

20. A preference for artificial illumination for colorimetric tests in chemical laboratories.

21. A demand for facilities for the examination of X-ray plates by daylight.

22. The use of portable vacuum cleaning machines in preference to pipe systems connected with high powered central machines.

23. The use of central destructors or incinerators for general waste disposal.

24. The use of local incinerators where the prompt destruction of infectious material is deemed important.

25. The use of a great variety of mechanical and electrical devices, such as call systems, telephone connections, the tel-autograph, radio connections, etc.

26. Emphasis on the direct ventilation of wards and patients' rooms, with the selective use of mechanical ventilation (especially exhaust ducts with fan equipment) for the ventilation of operating rooms, out-patient rooms, lecture rooms, kitchens, laundries, sink rooms and closets, toilets and baths, laboratories, autopsy rooms, and animal rooms.

27. The widespread use of tiled wainscots for service rooms of all kinds.

28. The use of tile wall finish in receiving wards and, to some extent, in children's wards.

29. Insistence on the screening of all hospital buildings.

30. A recognition of the dangers inherent in the use of X-rays, and the redoubling of preventive measures, such as the protection of wires and the special treatment of floors, walls and ceilings.

31. The use of warm colors for interior finish and decoration.

Respectfully submitted,

(SIGNED) S. S. Goldwater, M. D., Chairman.

R. G. Brodrick, M. D.

Frank E. Chapman.

Pliny O. Clark.

Christopher G. Parnall, M. D.

John M. Peters, M. D.

Wiley E. Woodbury, M. D.

CHAIRMAN GILMORE: There are fifteen exhibitors in the adjoining room displaying various things that go into the construction of a building and I earnestly hope that these will be visited.

Discussion of Questions Presented

The first question is, "Where should the operating room be located?" Mr. C. J. Cummings, of Tacoma, has come all the way from the Pacific Coast to the Atlantic Coast and by the time he gets back he will have traveled about one-fifth the distance around the earth. I should like to hear from him.

MR. C. J. CUMMINGS, Supt., Tacoma General Hospital, Tacoma, Wash.: It seems hardly possible that I have traveled the distance stated by Chairman Gilmore to come to Atlantic City. In answer to his question, the location of an operating room should be on the north side. We have our operating rooms on the top floor and north side of our hospital with large overhead and side lights, and well illuminated.

CHAIRMAN GILMORE: In the high buildings of a city the top floor is best for private rooms for the patients.

"Where should a laundry be located in a hospital?"

MR. CHAPMAN: The laundry should never be located in the hospital proper if it is at all possible to get away from it. The vibration and nuisance is always hard to control. If you can get it separated, by all means do it.

CHAIRMAN GILMORE: Should there be blanket warmers on each floor? These are questions that different hospital people have asked, and an answer to them means a good deal. Who knows anything about blanket warmers?

MR. BORDEN: Blanket warmers ought to be in each ward. You cannot tell when the weak patient is going to need warming up, and they ought to be handy.

MISS ALICE P. THATCHER, of Cincinnati: I agree with the last speaker, they should be located on each floor.

CHAIRMAN GILMORE: Get a good warm blanket in the winter, especially for the patient who comes back from the operating room. Blanket warmers are easily made and not very expensive.

A MEMBER: It reduces greatly the number of hot water bottles in use and minimizes the danger to the patient.

CHAIRMAN GILMORE: Hot water bottles will easily burn a patient under an anæsthetic, and a warm blanket will not.

MISS GREENER: There should not only be a blanket warmer in each hospital ward, but if possible it should be in a heater closet, especially on medical wards, so that blankets, sheets and

articles of that kind can be dried after giving packs or similar treatments.

CHAIRMAN GILMORE: "How should an operating room be artificially lighted?" It is my opinion that doctors generally prefer to have a strong central light with spotlights near by that may be turned upon the field of operation. I know of a hospital that has a good operating light made of an inverted dishpan with a cluster of electric lights underneath it placed on a crane where it can be swung over the patient or out of view of the students looking down upon the operation. The heat, of course, is intolerable in the summer time, but aside from that it is a first-class light for operating purposes.

"Which type of partition is preferable in general, hollow tile or metal lath?"

EDWARD F. STEVENS, Architect: Our reaction on that would be that if we can use solid partitions, then we can use metal lath, and I have found that the solid, thin partition is quite as soundproof as the tile of a greater thickness. If we want an absolutely soundproof partition, the partition should be reinforced with some deadening material, such as quilt or something of that nature. Even then a metal lath makes a better partition than the tile.

MR. SWERN: That question should be answered by the size of the partition. I mean its height and lineal dimensions. If it is not too large a partition, two inches thick, with steel channels and metal lath wired to it, would be all right; but if the partition is large, you will get noise transmission due to the fact that it acts like a diaphragm.

CHAIRMAN GILMORE: "What should be the color of an operating room wall?"

MR. CUMMINGS: We have had the white, green and rather a light gray, and light gray seems to be more pleasing and restful to the eye than the other colors we have tried.

CHAIRMAN GILMORE: Light gray has it so far.

"Where should the kitchen be located?" Near the dining room or where? In the basement or top floor? Somebody wants to know about this. Some say top floor. How about carrying your food to the top floor before it is cooked, and carrying back potato peelings, etc? How about the desirability of the top floor for patients?

MR. BORDEN: I think the kitchen should be in the basement; it is one of the least useful spaces in the hospital and can be perfectly adapted to kitchen purposes. It is the most convenient for bringing in provisions and is generally the most convenient place to the dining room.

MR. SWERN: I do not think we should use the word basement in the sense of below ground. Call it the ground story, and do not have the ground floor more than two or three feet below the outside grade, so as to get the sunlight in your kitchen. I think that is a very good location for it, much preferable to the roof, where you have to transport all your raw provisions, cook them and transport them down again and then take care of your garbage after you have taken the dirty dishes up.

CHAIRMAN GILMORE: "Should a new hospital provide wards, and if so, what size?" Dr. Goldwater speaks in his paper of cutting down the large wards by partitions and making smaller wards. How large a ward would you call a small ward? How many beds?

MR. SWERN: Five beds.

MR. STEVENS: My own reaction on that is that we should have wards, but small wards, so arranged that easy communication is provided between these small wards, and without the long distance to the sink rooms. In that way we can have the efficiency of the ward treatment with the privacy of the private rooms. In that way we can take care of our intermediates with practically the privacy of a private room.

CHAIRMAN GILMORE: Just a suggestion and along the line of Dr. Goldwater's paper, I will say that the hospital I represent had wards of about 24 beds, and we have split them up, some of them, by partitions, and find that it is desirable from the patient's point of view. At the same time the partitions are made of glass, so that the nurses in charge can see down the entire length of the whole ward, can see everything that goes on. The noise, however, is lessened. Likewise the ventilation is not as good.

"What is your opinion of H type and hub type hospitals?"

MR. SWERN: I would answer that by analyzation of the plan. If your H plan is large enough so that you have two nursing stations per floor, in other words, if we get two three-leg stations with a nursing radius of less than 50 feet, the H plan is just as good as any of the others. If your plan is small so that the nursing station must be in the center, the hub type plan is preferable and eliminates the necessity of a nurse having to go around corners to answer calls. A straight line is the shortest distance between two points and we should try to maintain that condition for the nurse when she answers her calls.

MR. CHAS. F. OWSLEY: I have been much interested in many of the questions that have been asked in this questionnaire, partly because I do not feel any competency to answer these from the standpoint of a hospital administrator, but I would like

to say from an architectural viewpoint that such questions as "Where should the kitchen be?" or "Where should the laundry be?" or "Which is preferable the H plan or the hub type?" are all matters that are interwoven with the size of the hospital and the type of service that is to be rendered by the same. We know fundamentally that the kitchen and the laundry and the dispensary, etc., all have certain definite relations with the other administrative features of the hospital, but it seems to me that one cannot answer these questions intelligently until we know the whole phase of the problem. This is particularly true of the last question, "Whether an H type of plan or a hub type of plan is preferable," because it cannot be answered intelligently unless one is dealing with definite conditions of the site, contour and orientation, and the possible location of the service and public entrances. The hub type has certain advantages over an H type, but we cannot answer the question from the standpoint of a detailed element, but must rather consider the larger questions involved.

CHAIRMAN GILMORE: "What is the present price per cubic foot for fireproof and semi-fireproof construction?"

MR. SWERN: In Chicago we have found that about 56 cents per cubic foot is a fair price for fireproof construction. I cannot tell about the semi-fireproof; we have not done any of that. Further north, in the state of Wisconsin, it has come down as low as 50 cents per cubic foot. Those are fireproof hospitals; each room is equipped with individual utilities and they are complete in all respects.

CHAIRMAN GILMORE: "Is it advisable to have the X-ray departments on the same floor with the operating room?"

MR. MACKENZIE, of Memphis, Tenn.: That is like every other one of these questions that our friend says you can not answer offhand. I would like to say this, however, wherever you put it, somebody will say it is the wrong place; and furthermore, seriously, that question can be answered in this way: It depends on the character of the service demanded in the X-ray department as to whether it should be adjacent to the operating rooms, supposing they are on the top floor, or whether it should be more convenient to the entrances and exits of the building.

DR. GOLDWATER: I wish to endorse the remarks of one or two previous speakers to the effect that hospital planning is an art and not a science. To ask whether a kitchen should be one place or another without qualification is manifestly absurd. Anybody who has planned a series of hospital buildings to meet various needs knows that the first necessary step is to make a program, and that this involves the consideration of several elements. You have the elements of site, of the complete work

you would like to do, of the limited work for which you have sufficient means available; you have a given type of medical organization; you may have a given type of nursing organization, and these and countless other questions and conditions have to be considered. The idea in general can be no better illustrated, I think, than by what was said about the location of the X-ray department. If we proceed on the assumption that a hospital is an organized medical institution planned to do the medical work of the community, it is going to undertake to do outpatient as well as inpatient work. It is a fundamental principle of hospital economy that you do not put in two machines where one will do the work, and do not employ two people to do the work of one. If we assume that the hospital is going to do both in-patient and out-patient work (and if it does not, it is not a hospital in the true sense) then we want a single X-ray department to serve both in-patients and out-patients. In any hospital doing both, with an outpatient department reasonably well developed, it will be found that about 50 per cent of the demands on the X-ray department emanates from the out-patient service. After such an analysis, it would be absurd to suggest that all the X-ray patients should be sent to the operating floor. In locating a department you consider the character of the work to be done, the area of distribution, the sources of supply, of material or of patients, and you place your departments accordingly. What I have said applies equally to the dispensary. The question asked is whether a dispensary should be on three floors or on one? I happen, at the moment, to be engaged in planning a number of dispensaries. In one case, it is a one-story affair, in the other a six-story affair. It all depends on the general scheme. If you are putting as few as four or five out-patient classes together and are calling that an out-patient service, you assemble the whole small group for convenience of administration; you want one register, one pharmacist, one exit and entrance. But take a dispensary that requires a hundred or a hundred and fifty different rooms—and they exist—and to find a single floor on which all of the departments can be placed, is, nine times out of ten, a practical impossibility. So it is not a question of one floor or three floors; the thing to do is to make a hospital program that will conform to all the circumstances of the case, and in that sense I do not believe a single one of the questions that have been asked can be answered definitely, without qualification, in a satisfactory manner.

CHAIRMAN GILMORE: Don't forget, however, that these questions came from people who have these conditions to meet. Perhaps they are not building new hospitals, but have old ones that they are trying to remodel. Meeting adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fourth Annual Conference, Atlantic City, New Jersey,
September 26, 1922, 9:00 a. m., President O'Hanlon in the chair.

GENERAL SESSION

PRESIDENT O'HANLON: The meeting will please come to order. It gives me great pleasure to introduce Dr. J. M. Baldy, Welfare Commissioner of the State of Pennsylvania.

DR. J. M. BALDY, State Welfare Commissioner, Harrisburg, Pa.: The Welfare Department of Pennsylvania is the largest in the field of similar activities of any state in the union. We have grouped, amongst other things, under the Bureau of Assistance of this department, the state aid to medical and surgical hospitals. I take it that it is unnecessary to tell an audience of this type that no business can be conducted without a basic accounting system; you yourselves have recognized this fact, and have a committee, I believe, working along those lines, and in establishing the accounting system that we have in Pennsylvania, we have consulted very freely not only the results of the work of your committee but the committee members themselves. Dr. Bachmeyer has been a very great help in focusing our ideas as to what should be and would be a proper hospital accounting system. Your former President, Mr. Test, has been a very potent factor in the development of the system we have developed in Pennsylvania.

Now we believe, and I believe that you believe that no hospital can be run competently and well and intelligently unless you know where your moneys are going, what activities are going on in your several departments; how these activities are being conducted and what each one costs. Without a proper accounting, it seems to me it goes without saying that that information is impossible to be arrived at by any superintendent or any board of managers. I know perfectly well that the hospital system of America has grown up on quite a different basis, and the result speaks for itself. It has been so bad in hospital management that this organization has to come into existence to correct this as well as other things and to bring order out of chaos.

In Pennsylvania in the past, with very few exceptions, there has not been a hospital which had an accounting system that was worth the paper it was written on; there has not been a

member of a board of managers who knew anything of detail about the fiscal business of his hospital, however good a man he was in his own business and however thorough. They seemed to have assumed that you can run a hospital as you would run a lunatic asylum or allow the inmates themselves to run it. We have conceived that if we are to improve things (and the State of Pennsylvania is now in a humor to demand great improvements), we must have something on which to begin, and we do not want to begin on something that is going to be temporary; we do not want to begin on something that is going to be good only for this individual hospital or that; we are trying to begin on something that is solid basically; we want to begin on something that is going to result in benefit to all the hospitals as well as to the Commonwealth of Pennsylvania. We have also had in mind the possibility of setting the pace for the rest of the country.

With these thoughts in mind we have adopted a uniform system of bookkeeping, of necessity, because the Welfare Department has the responsibility of recommending to the Legislature and to the Governor, appropriations of vast sums of moneys running into the millions, for the aid of our hospitals. It is absolutely necessary therefore that we, in the department, know what we are doing and have some intelligent knowledge on which to base our recommendations. It is necessary to know accurately what it costs to support a patient who is so poor that he can pay nothing for his own support, and on that knowledge we must base our recommendation for state aid. On this basis we must eliminate from consideration those patients who can pay for themselves and ought to pay for themselves, those imposters with whom you are all perfectly familiar, and it is not necessary for me to more than call attention to the fact of how your hospitals are thoroughly loaded down with free patients who ought never have been allowed the use of charity money. With us it has become such a scandal, and the state has been so burdened with the matter financially, that it is embarrassed. The question comes, and it has been a serious question, how to tell how much it costs to support a poor patient. We have established a bookkeeping system which we have insisted that every hospital which intends to or does apply to the State of Pennsylvania for aid, shall adopt. This system is uniform and by means of it we have a method of comparison not only as regards the cost and upkeep of various departments, but we can compare these with every other hospital in the state and put our finger on the hospital that is running an X-ray Department at a cost of \$10,000 a year when every other hospital in the state of similar

type and amount of business is running one at \$5,000 a year. That is merely an illustration. Throughout the whole system we want a comparison by which we can not only know these facts in the State Department, but by which every hospital superintendent and manager himself may, in a moment, turn to their books and quickly obtain that knowledge. Of course it will take a year or two to accumulate data, but when this data is accumulated it will be invaluable to every hospital administrator anywhere in the country. These are the basic ideas, the basic principles back of what we are doing.

The bookkeeping system is simple and complete and adds little to the burden of the office. Many of the items were kept in the past in a slovenly and haphazard way. The system consists, first, of a patient register. (Every hospital, even a small hospital, in the past, kept a register of their patients, such as it was.) It has a cost analysis attached to it for the final analysis of the cost at the end of the year. It has a general cash disbursement (every hospital had, more or less efficiently, kept this, in a perfunctory way). It has cash receipts. It has a voucher register, and then it has a distribution by voucher register to every department in the institution and every sub-department; eight main departments, with all the sub-departments of those main departments specified for entry, charging for or against each department. An essential element is the stores account. Finally, it has the journal and ledger.

We have divided this bookkeeping into two parts and we have advised the managers that two bookkeeping accounts are to be kept, separate, as indicated; one for your maintenance, and one for your capital. We are peculiarly situated in Pennsylvania. Under our laws, the state allows an amount of money for aid to a hospital to be spent only for maintenance. The state auditor generally specifies what is not maintenance and what is. In order to get away from confusion and that the state may audit the books of the hospital easily, and that the administration of the hospital itself may know what may be charged to maintenance and what not, the hospitals have been gradually instructed and have become accustomed to those things which must be charged to capital account; because if not charged properly, it has been stricken out by the auditors and not allowed. As we have two accounts, so we required two bank accounts, in order to avoid a mixup. The capital account carries with it very much the same principle,—cash receipts, cash disbursements, voucher register, the departments of distribution, the journal and the ledger. I have a copy which I am going to hand to the President and he may pass it around.

By this method we will know exactly what every department of an institution costs; we know what each sub-division of that department costs, and there is nothing neglected; it is as perfect as we have been able to make it. We will have at the end of the year, under cost analysis, that figure which will show what it has cost to maintain a poor adult, and upon that the system of state aid will be based. As to the working of this system, it is astounding to find already as the reports are coming in, that where hospitals thought they were having four or five dollars per capita cost for maintenance, they are dropping down below three dollars, and as to the hospitals, they are getting more experienced, the per capita cost of the hospital is dropping more and more, showing that in the past no hospital knew anything about per capita cost, because they had no system by which they could know.

We have added to this bookkeeping system as a necessary corollary, a credit department which must be run independently from the admitting department. When the patient is admitted to that quarter in the hospital which, under the admitting officer, seems to be the quarter to which they should go, then the account is handed over to the credit department and from that time on the admitting department has nothing to do with the bills. The credit department is organized on the basis, not of strict cold-blooded business, but on the basis of taking charity into consideration. The efficient working of the department will take care of the poor man who has too much pride to admit his poverty, in consequence of which he is willing to burden himself and his family with debt; is willing, rather than admit the truth, to practically take the bread and butter, clothing and education from his children. This will show his real status, and the credit department will place him in the hospital in his proper place without the humiliation which he might, falsely of course, feel; but which after all is human. That feature we impress on the credit department; they are not there simply to get money, they are there only to get the money from the fakir, from the man who is imposing on the charitable contributions of private individuals to the institution and on the charity of the State of Pennsylvania. I have in my hand the report of Mr. Brooke, a former New Yorker, at present superintendent of the Harrisburg Hospital, in which he made a report to the hospital management of the first three months' work of his credit department. He shows during April, May and June, with three hundred less patient days than a similar period the year before, that he has \$4,568 to the good, not one penny of which would have ever been seen had it not been for his credit department; every cent of

which would have been paid by the welfare organization of Harrisburg or by the State of Pennsylvania out of the funds of the taxpayers.

Now here is a showing of the first three months of a newly organized venture, a showing for which there has been no precedent, nothing on which to build, which has had to be builded from the beginning. I think you will see, with a multiple number of hospitals in the State of Pennsylvania, when you take into consideration the biennial period of two years, that it means many hundreds of thousands of dollars saved to charity funds, paid by those who are perfectly well able to pay, and should pay, and have no right to use charity funds. If this is so in one hospital, if this is so in one state, what must it be in all of your hospitals? We say to the credit department, you are to operate on a fixed basis, and there are certain fundamentals, underlying principles which must obtain; you cannot charge to the state a patient who occupies a private room; you cannot charge to the state a patient who occupies a semi-private space, because semi-private space is supposed to be such space as is paid for up to the amount it costs the hospital to provide the space. You may not charge to the state one who comes under Workmen's Compensation, because the State of Pennsylvania has already provided through another portion of the state government for the care of the injured workmen. It may be that they have not provided sufficient funds for the purpose, but that does not warrant the Welfare Department to divert its funds which are provided for a distinctly different purpose, where the State Legislature has already provided for the care of a certain class of her citizens. If this is not satisfactory, it is up to the Legislature to make it satisfactory by additional legislation. But no conscientious administrator can manipulate funds so as to use funds, appropriated for one purpose, for another.

The credit department may not charge to the state a municipal officer. Only yesterday, on the Boardwalk, one of your members called my attention to the fact of a fireman of the City of New York applying for and demanding charity aid in the charity ward of a hospital; and in the City of Harrisburg the day before I left the case of a policeman is reported, a man on salary, full time, every day employment, and yet the mayor and treasurer of the city refused to pay—the credit department wanted to know what to do. I said, "I don't know what you will do, but I know the State of Pennsylvania will not pay for that man; he is either taken care of by his own wages or by Workmen's Compensation, and in either case he is not a charity patient. It is up to the City of Harrisburg."

We exclude certain men who are injured in a fight on the street and automobile collisions, and hospitals have already begun, in certain quarters, to collect from these for hospital attendance through the magistrates at the time they are tried. One superintendent interested in a hospital in one of the large interior towns of Pennsylvania only yesterday here in this city called my attention to the fact that they were arranging with one of the magistrates of the town to collect all their bills. The influence of a note coming from an official of that character is such as to bring about good results.

We will not allow the state to be charged for a patient in a case which the hospital has failed to investigate properly. They must make certain lines of investigation as regards the patient's financial status, and we have a card for part pay or free patients on which the applicant must set forth where he works, the amount of his salary or wages, how many dependents he has, whether he belongs to fraternal organizations, whether he is amenable to Workmen's Compensation, whether he has health and accident insurance, and matters of that kind.

One of our legislators wrote me that one of his constituents was insulted at being asked for this information, and that the State of Pennsylvania ought to wipe out the Welfare Department in consequence. I investigated and found that this gentleman had voted against the creation of the Welfare Department a year ago. He may be out of office long before I am. Any man who is insulted at any questions of that kind, that itself alone, without anything else, dubs him as not worthy of charity and he ought to be stricken off without further investigation. I admit a department may approach a man in a way to make it insulting; that is a different proposition. I am assuming that the department works properly and well. You will see, up to this point, that a great deal of the safety of state funds is in the hands of the hospital, depending on how the credit department is administered. Human nature is human nature. I am not insulted when rules and regulations are made that I have to conform to in the office of the Welfare Department. I was under certain rules and regulations when I was associated with the Bureau of Medical Education and Licensure, but was not insulted by that fact, nor is any other business man belonging to any organization insulted because there is a proper check over his work.

The final safety of the state rests therefore in the fact that we have established in the Welfare Department a division of auditors and credit departments whereby hospitals are regularly audited and checked up as to their methods and efficiency.

We have our auditor and accountants in the field visiting the hospitals and seeing the records, and if the records are not kept or if they are not preserved for credit, if the patient has not been properly investigated, the case is rejected as far as the state is concerned. It will not take long before the departments are being run efficiently and before the hospitals themselves see that therein lies their source of additional funds, and that therein in the past has been a great source of poverty which they can cure to a very large extent. The accounting system alone would not accomplish that which we want to accomplish; the book-keeping, plus the credit system, standing alone, would not accomplish what we want to accomplish; but we believe that with the audit division (officered by intelligent audit accountants) supplementing those two departments, we will bring about that which we want, namely, efficiency,—shutting out the fakir from imposing on charity funds, increasing the funds of the institutions themselves, showing them wherein their departments or sub-departments are costing them excessively and thus giving them the opportunity to put their finger on the place where reform should come, and incidentally saving the State of Pennsylvania, I believe, hundreds of thousands of dollars annually. This is what we have been doing in Pennsylvania. You ask me, have we done it without trouble? No. Have we done it without heart burnings? No. Are there objections to it? Yes. Is it working well? Yes, every day better and better. Opposition every day is decreasing; there is more and more coöperation, and institutions that in the past have been asking the State of Pennsylvania for aid are now finding out that it is not necessary for them to ask it, and some are withdrawing from the list.

One of the largest of the Philadelphia institutions notified me the other day, after thanking me for the consideration we had given them, that they would not apply for state aid, that they had gone over the situation and were satisfied they could meet their expenses without it. This has occurred in the case of two or three other hospitals. One hospital wrote and wanted to know, if they did not take state aid, whether the state would attempt in any way to interfere with them, and we told them no; it was only when they wanted to spend the taxpayers' money that the state would interfere. I firmly believe in state aid to medical and surgical institutions and to the Mothers' Assistance Fund. I do not believe in inefficient aid. I believe, for instance, in the Mothers' Assistance Fund taking on fewer pensioners and pensioning those they do take on properly and efficiently, so that they may effectively carry out the intentions of the Assem-

bly. And so with the hospitals; I believe that sufficient aid should be given the hospitals in order that they may be run properly, decently, orderly and efficiently, and it would be better for the state to try to aid fewer institutions and to do it in the right way. Of course, as far as state aid is concerned, many of you in your states and hospitals are not interested. Your states do not give aid, and you may wonder wherein all this interests you.

To the hospitals in the Medical Bureau work, I said, "If you will run your scientific departments properly, on a business basis, they will not cost you a cent." Referring to laboratories, X-ray departments, the creation of which was the primary movement in the work of the Bureau of Medical Education in Pennsylvania, which work caused an enormous amount of heart burnings and outcry over the enormous expense put on institutions: A small institution in the coal regions, one year after it had established its laboratory and X-ray departments, with a woman superintendent, told me the hospital was on an even keel and paying its way. Within three or four weeks one of the largest institutions in Pittsburgh brought in their quarterly report under the new dispensation, and it shows that the X-ray department cost them \$20,000 to administer and that they had collected \$32,000 from the department. Their pathological department had cost them in the neighborhood of \$22,000 to conduct, and they had collected \$28,000 or \$29,000 from the department. Now here is a clear, clean demonstration of the efficiency and the truth of the fact that, properly run, the scientific department will pay.

I now say to you this, that properly run, the credit department will not only pay in any hospital in the country, but will put you on "easy street" financially in comparison with what you have been in the past. The demonstration is here already with the Harrisburg Hospital, with \$4,500 to its credit in the first quarter, and an administrative cost of less than \$900,—a clear, clean profit of about \$3,600, not one cent of which would they have otherwise seen. It only shows what efficient business as applied to hospitals will do in every phase of hospital administration. The trouble is we grew up in a slipshod way of running our affairs; it became inborn in us; it was the way everybody did it; we did not think anything else could be done or any other way was possible.

The spirit of the legislator in Pennsylvania who said his constituent was insulted because he had to answer a few business questions that every man asking credit in the commercial world has to answer, prevailed, and we grew up to think it was

an insult to ask a single question of a man who came and asked for charity, and felt that we should take their word for it. And what grew out of it? I do not know how it is in your state, but in Pennsylvania every politician had a place to which he could send his friends and did send them freely, into the wards and then into the private rooms and had private nurses for them, and the State of Pennsylvania paid for it. That was the result in our own state, and I daresay it is the result in every state in the union, and why? Because we, as hospital people, did not have sufficient vision to grasp the situation and see the way to stop it and conduct the matter on business principles. One of the Pennsylvania superintendents said to me last night on the Boardwalk, "What am I going to do, when a politician comes to me and demands this?" And I said, "You have been up against this for years and I have been up against it for years, and we have all had to do the best we could; but now you are in a very different position; you can say, 'My books are audited by the credit department of the State of Pennsylvania, and if you do not like it, go and ask Dr. Baldy.'" There is only one man can stop it, the Governor of Pennsylvania, and he can only stop it by my removal from office. So the institutions now have a backing that they never had before; they have got an opportunity now they never had before; they can do what they never did do, and the result to them will be, as I have said, so satisfactory that they will be just as satisfied when the whole thing is over as they have been with the establishment of the laboratories.

PRESIDENT O'HANLON: I am sure we are all under great obligations to Dr. Baldy for the message he brings us of the work they are doing in the State of Pennsylvania. While we cannot all come from the State of Pennsylvania, I am sure there are some among you who would care to ask Dr. Baldy some questions, and I feel sure he is willing to answer them.

MR. FREDERICK D. GREENE, General Secretary, United Hospital Fund of New York, 105 East 22d St.: The United Hospital Fund is an organization of 58 of the leading hospitals of New York and Brooklyn, and you might be interested to know that during the last ten years the carefully kept and uniform statistics of the United Hospital Fund show a remarkable trend on this point you are now discussing. Ten years ago 61 per cent of the patients in those hospitals paid nothing; in the year 1921 there were only 32 per cent that paid nothing. Ten years ago 18 per cent of the ward patients paid something toward their care, i. e., paid all or a part of the ward rate; this last year 45 per cent of the ward patients paid something. You see the 61

per cent of free patients have gone down to 32 per cent, and the part paying patients, who were then 18 per cent, have gone up to 45 per cent. Now that has all come about without any agitation. Higher wages have enabled many self-respecting people to pay at least in part, and they have been glad to do so. But it also seems as if, under the strain of the war and the higher expenses that the hospitals were put to, they have been using more care and more pressure to secure from those who can pay, a reasonable amount. There has been no criticism; very few know that this change has taken place, but it is a very significant, wholesome and just change. Of course it has reduced the demand upon charity, released the charitable fund for other and more necessary cases, and it has also reduced the burden upon the taxpayers.

MR. TRIMBLE (?) of New York: I am comparatively a new-comer in the hospital field. I have been absolutely appalled by the difference between the income and expense of the average hospital as shown by its own report, and I believe that a great deal of that is the fault of the hospitals themselves. In New York City we find that where we have an ambulance service, go out and bring in patients and take care of them, treat them and send them away cured or helped, the city sets a flat, fixed sum that they will pay us for the care of that patient—\$2.50 a day—no operating room, no X-ray, no drugs, no anything of that kind; while, on the other hand, in a compensation case, the Compensation Commissioner sets the cost, \$3.50 a day—no this, no that, no the other. Every one of you here who are at all in touch with the administration of the hospital knows that no two cases can be classified exactly the same. A man with a fractured leg lying in a hospital eight or ten weeks does not commence to cost what a second degree burn does.

We have been analyzing this item of city cases. In eight months of this year they have cost us \$14,800 more to keep than the city had allowed us. Now, understand, we are all obliged to take care of a certain amount of free cases and part paid cases, but we do not class the city case as a free case. Our hospital is not getting credit for taking care of free cases, not at all. The controller's office is getting credit for keeping down the expense of maintaining the city poor. We are going out as a hospital and asking the public to help us to help the controller's office. And it is the same way with your compensation cases; their lawyers and doctors go down before the commission and fight us about our claims and all that sort of thing, and they get their salaries raised because they are saving the insurance companies money and pass it on in dividends to their stockhold-

ers, and our trustees are going out begging money from the public to keep our expenses inside our income to help the insurance companies pay dividends. I would like to hear if other hospitals are up against it the way we are, and I would really like to see a committee added of audit and credit and expense, so that we would have some place to go and get all this kind of information.

MR. T. C. ZULICK, Easton Hospital, Easton, Pa.: I am mighty glad to hear the gentleman who just preceded me talk about compensation cases. It is true the Boards are compelled annually to go out and take up a collection to take care of compensation cases. At Easton, when the first State of Pennsylvania law passed, it allowed fourteen days' compensation for medical services and hospital treatment. Any man connected with a Hospital Industrial Section knows that most of those cases pass beyond the two weeks, and, as Dr. Baldy stated, those cases cannot be charged up against charity. The result was that there was an extra charge against management to take care of those cases.

MR. FRANK E. BROOKE, Superintendent, Harrisburg Hospital, Harrisburg, Pa.: Dr. Baldy has said all that needs to be said in regard to the credit system. I only want to say that I would not be in the hospital game if it were not that it has the human side, and I want, here, to voice my opinion that we, having a credit department, are able to help the patient by letting him know, during the hours of his illness in our hospital, just what is in store for him instead of having him lie there during the course of his illness and worry about how he is going to pay his bills. I have had, within the last week or two, three men stop at my office on going out, and thank me for the fact that they have been able to know where they are going to get off on the payment of their bills.

REPORT OF THE COMMITTEE ON OUT-PATIENT WORK

John E. Ransom, Chairman, Michael Reese Dispensary, Chicago

During the three-year period ending with this meeting of the Association your Committee on Out-Patient Work has been carrying out a new program. At a meeting of the Committee in 1920 held for the purpose of determining plans for the year it was decided that the Committee might well develop some features of the non-commercial exhibit, setting forth by means of exhibit and demonstration certain aspects of effective out-patient work. Discussion, conference and correspondence

led the committee to believe that it could best carry forward this program if it centered its activities each year in some one dispensary feature. Our first exhibit was at the Montreal meeting in 1920. Through the able coöperation of the United States Public Health Service, the American Social Hygiene Association, the Social Hygiene Organization of the Province of Quebec and the courtesy of many of the Association's commercial exhibitors, a model venereal disease clinic was equipped and maintained as a feature of the convention. The purpose of this was to demonstrate to hospitals and dispensaries how such clinics might be organized, equipped and conducted not only as a means of venereal disease control but as an essential part of well rounded hospital service. An important part of this scheme was that experts in venereal disease clinical equipment, organization, treatment, social service, etc., were available for consultation with the members and guests of the Association. Perhaps the Committee learned more than did anyone else from what it tried to do at Montreal. At any rate it determined to profit by its experience and to do a much better job at West Baden. The better exhibit and demonstration that year of organization, equipment, routing of patients, treatment technique both medical and social in relation to venereal disease clinic service was made possible by the very splendid coöperation of the American Social Hygiene Association. Dr. Alec N. Thomson, Medical Director of that organization, who became a member of our Committee, gave invaluable service to this feature of the Association meeting.

This year the Committee has arranged for an exhibit and demonstration of a model cardiac clinic. This was made possible by the generous coöperation of the New York Association for the Prevention and Relief of Heart Disease. Cardiac Clinics have been established in many of the more progressive hospital out-patient departments and dispensaries during the last few years. If well organized, with the right coördination of in-patient and out-patient service and of medical and social treatment they have become effective means of meeting the needs of the cardiac patient through an economic and efficient use of community medical resources. The purpose of the model cardiac clinic which invites your inspection at this convention is to render whatever help it can to any hospital or dispensary interested in the establishment, organization, equipment, or conduct of such a service, or in the improvement of such a service already under way. It is unlikely that there has been any development in the hospital field during the last ten or fifteen

years comparable to that which has taken place in relation to out-patient service.

In 1913, Dr. Michael M. Davis, Jr., reporting for the Committee on Out-Patient Service, gave the following figures significant of dispensary growth. In United States Census Bureau reports published in 1904 there were listed 156 out-patient departments with 1,611,000 patients. By 1910 the number of out-patient departments and dispensaries had increased to 574 and the number of patients treated to 2,349,000. Commenting on these figures, Dr. Davis showed that in several instances the census figures were much too low and made this statement: "It is probable that 2,750,000 to 3,000,000 individual out-patients were treated during 1910 and surely 3,000,000 are annually treated in this country at the present day." (1913).

The 1914 report of the Out-Patient Committee showed that there were then between 750 and 800 dispensaries and out-patient departments in the United States. Of this number 400 were general dispensaries; 300 were dispensaries for tuberculosis only; and 60 were other special dispensaries.

The next report of the growth in the number of dispensaries and hospital out-patient departments was made at the Philadelphia meeting in 1916. The figures were:

General Dispensaries and Out-Patient Departments.....	900
Special Dispensaries and Out-Patient Departments.....	100
Public Health dispensaries	1,300
<hr/>	
Total	2,300

This number of general dispensaries has increased from 680 in 1916 to 946 in 1922. The number of these which are hospital out-patient departments was 495 in 1916 and 689 in 1922. No survey of the whole out-patient field which would yield figures comparable with those given above has been undertaken by the Association since 1916. This year, however, the Council on Medical Education and Hospitals of the American Medical Association has made a very comprehensive survey. The growth and development of out-patient service as evidenced by the report of this study is almost unbelievable.

The increase in the number of general dispensaries during the six-year period since 1916 has not been very considerable; the numbers of such institutions being 900 for 1916 and 946 for 1922; an increase of only 5 per cent. The number of special dispensaries and out-patient departments and the various public health clinics and dispensaries has grown from 1,400 in 1916 to 3,151 in 1922; an increase of 125 per cent. Analyzing these

figures somewhat, we find that in 1904 there were 20 special dispensaries for the diagnosis and treatment of tuberculosis; in 1916 there were 500 and in 1922, 667. Of infant and child hygiene clinics there were none in 1904; 400 in 1916; 566 in 1922. There are in 1922, 487 special dispensaries for the treatment of the venereal diseases; 260 mental hygiene dispensaries and out-patient departments of hospitals for the insane, 53 out-patient departments of special hospitals, 119 dispensaries and out-patient departments connected with the United States Public Health Service.

Basing a conservative estimate on its incomplete returns the American Medical Association gives 4,000 as the approximate number of out-patient departments and dispensaries of all kinds in the United States. Comparing this figure with similar estimates made by the Committee on Out-Patient Work we have the following:

Year	Number of Dispensaries and Out-Patient Departments
1904	200
1910	700
1916	2,300
1922	4,000

Thus it appears that in 1922 there are twenty times as many dispensaries and hospital out-patient departments as existed in 1904. Figures as to the number of patients served by dispensaries are often misleading. Most dispensaries have no record of the number of different patients they serve in a given period. When asked for this figure, in most cases, they give the number of new patients admitted. Thus one cannot compare with accuracy the 3,000,000 which was Dr. Davis' estimate of the number of individual patients cared for in 1913 with the American Medical Association's 8,000,000 for 1921. Much more nearly accurate is the number of patients' visits. The estimate of the American Medical Association of visits of patients to the 4,000 dispensaries in the United States last year is 29,500,000. Unfortunately we have no corresponding figures for previous years with which this may be compared.

Many conclusions can do doubt be drawn from the records of this phenomenal growth in out-patient service. We can discuss but one or two here. It is obvious that the increase in general dispensaries, both out-patient departments of general hospitals and independent general dispensaries, represents a much more gradual growth than does that of the public health dispensaries. According to the figures of the American Medical Association only 689 or 13.5 per cent of the 5,105 general hospitals in the United States have out-patient departments. Davis

reporting in 1916 gave 495 as the number of known out-patient departments of general hospitals and estimated that there were 150 more which had not reported to the Association. Thus though there has been a gradual increase in the number of hospital out-patient departments one is forced to the conclusion that the recent phenomenal growth of the dispensary movement has been from without rather than from within the hospital world. Much of it has been a part of great public health movements. Organized forces combating tuberculosis, venereal disease, infant mortality, mental disease, etc., have found the dispensary or clinic a most effective instrument in the diagnosis, treatment, and prevention of the diseases and conditions with which they deal. To the hospital world belongs the credit that as these public health forces came into existence and sought effective means of carrying on their work they found the out-patient clinic, which had been developed by the hospital, an economical organization of medical service ready for their use. That the public health dispensary should develop as an independent medical institution rather than as a part of a hospital has been in most cases both natural and necessary. But this independence of the public health dispensary brings its own difficulties and problems. The tuberculosis dispensary needs affiliation with the tuberculosis sanitarium and the hospital. The venereal disease clinic needs recourse to hospital beds for some of its patients. The well baby clinic must have ready access to medical facilities for those of its patients who become sick. Thus it would seem that for the best interests of the patients affiliations between independent dispensaries and hospitals should be developed wherever possible.

In studying the reports of the Out-Patient Committee from 1913 to the present time one is struck with the recurring insistence on the absolute need for greater efficiency in out-patient service and the primary importance of developing standards. Though progress has been slow and though the general level of the quality of dispensary work today is far below what it should be, we believe this insistence on the part of your committee, the work of a few leaders who have firmly believed in the value and possibilities of the dispensary, the support of some of the leading hospital superintendents, has had much to do with the great advances which have been made in this important phase of hospital service.

We shall mention but a few of the important developments. Of great significance has been the growth in the number of special clinics in general dispensaries. Where a few years ago most dispensaries had but one department in which

were treated all diseases coming within the field of the internist, today we find this general medical department divided into such special clinics as cardiac, metabolism, gastro-intestinal, renal and the like. Other general departments have likewise been divided up into special clinics dealing with some one disease or condition. This increase in specialization, though it presents some problems and difficulties, has contributed very decidedly to dispensary efficiency. In the first place it has been responsible for a very considerable increase in staff interest. Men who have found general clinical work uninteresting and distasteful are giving wholehearted, valuable service to some special clinic in whose disease problem they have a real professional interest. The development of social service in dispensaries and hospital out-patient departments has been another valuable aid to increased efficiency. Of the 946 general dispensaries listed by the American Medical Association 380, or 40 per cent, reported social service departments. Of these 341 had one or more paid workers, the number of paid social workers totalling 964. There has been a most encouraging increase in the number of paid physicians in out-patient service. Six hundred and fifteen out of 946 general dispensaries reported a total of 1,088 full time physicians on their staffs. It is probable that a considerable number of these physicians are not giving full time to out-patient work but are employed in general hospitals in which a part of their time is devoted to the out-patient department. An increasing number of dispensaries are paying for some of the part time service of clinicians.

The use of out-patient clinics for the teaching of medical students, both under-graduate and post-graduate, internes and nurses is another development which is making far better dispensary work, through increasing staff interest. According to statistics furnished by the Council on Medical Education and Hospitals 165 general dispensaries and hospital out-patient departments are used in undergraduate medical education; 95 in post graduate education; 282 in the training of internes and 347 in the training of nurses.

With all the progress that has been made in dispensary service the outstanding problems today are in general much the same as those of five, ten or fifteen years ago. The hospital world needs today, just as it has needed in the past, to give more serious attention to out-patient work. The dark horse, the Cinderella, the step child, the poor relation are terms which have been and in many instances can still be truthfully applied to this important member of the hospital household. Davis in his 1913 report says, "In view of the remarkable development of out-pa-

tient service, it is all the more noteworthy that most hospitals which conduct out-patient departments have paid so little attention to them." Since that day most hospitals having out-patient departments have paid more attention to them. But withal, far too many out-patient departments today are poorly housed, poorly equipped, inadequately staffed, poorly organized and abominably supported. Hospital trustees have not demanded of their out-patient departments the same degree of medical efficiency, or administrative efficiency as they have from the so-called hospital proper. There has been no College of Surgeons or other body insisting on the standardization of out-patient service. The relatively small number of general hospitals which have out-patient departments would indicate the need for the development of more of such departments, especially in hospitals in the smaller centers of population. But the greater need today is primarily for better service in existing institutions rather than for more institutions. To this end the work of the Committee on Dispensary Development of New York is of great moment. If from the labors of Dr. Davis and his associates there shall result standards by which out-patient work may be tested and measured, and methods which shall make for greater efficiency and economy in dispensary work they will have rendered a service to the hospital world and to the increasing millions of dispensary patients, the value of which will be inestimable.

The session then adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fourth Annual Conference, Atlantic City, N. J., September 26, 1922, 2:30 p. m.

SECTION ON DISPENSARIES

CHAIRMAN RANSOM: The meeting will please come to order. Dr. Dodson, Dean of Rush Medical College, comes to us extremely well versed in his subject, "The Educational Value of the Out-Patient Department in Relation to Practitioners of Medicine." Dr. Dodson has not only been Dean of Rush Medical College for many years, but also one of the Directors of the Central Free Dispensary at Rush Medical College, one of the largest dispensaries in the middle west, and is not only familiar with dispensary work, but thoroughly in sympathy with dispensary work today. I have great pleasure in introducing Dr. Dodson. (Applause.)

DR. JOHN M. DODSON, Rush Medical College, Chicago: Your Chairman has given me a pretty large contract. He said that the subject was to be divided into two parts, but as they are rather closely related, perhaps they can be discussed together to fair advantage. Of course it would be quite impossible to cover such a topic as this with any fullness at all in a brief discussion like this; I can only touch upon such salient points as seem to me most important at the present time.

In discussing the dispensary or out-patient department as a resource for the teaching of medicine, one logically inquires, first, what are the aims, the purposes, the methods of modern medical education? Second, what material and equipment has the dispensary to offer for this purpose, and third, how can this material best be utilized? And then I shall offer a few suggestions of what I think would be improvements in the prevailing method of our use of this material.

As to the aims and purposes of medical education, they are, of course, for the undergraduate student, who is preparing himself to enter into independent practice, designed to fit him for such practice, *not* as a specialist, but as an all around, well equipped general practitioner. Our methods of seeking to accomplish this have changed very radically indeed in the last twenty years. I was educated in the days of the didactic lec-

ture, the arena or display clinic, and the occasional quiz,—methods which have almost been relegated to the limbo of the forgotten, and certainly are of very minor importance in the modern training of medical men. The main purpose, we are gradually coming to recognize, of every educational process, medical or otherwise, is not the stuffing of the students with facts, but the development of his faculties, the training of his powers of observation, and of logical deduction. Even for the purpose of imparting mere information, the didactic lecture or the arena clinic delivered to large bodies of students, were of dubious value. I question whether many students would not have spent their time to better advantage reading text books, with an occasional quiz. For the purpose of training faculties, such lectures, didactic or clinical, are hopelessly inadequate. And so gradually these methods have been replaced by practical methods similar to those in use in the laboratories of the fundamental branches, by which the student, in small groups or individually, is brought in first hand contact with the material to be studied, namely, the sick person, under the close supervision of an older, experienced observer, the instructor; and that constitutes the major part of modern medical education. The student must prepare himself in the study of this material and its use, first, to observe keenly, accurately, comprehensively, very much by the method that Agassiz employed to teach his students to observe natural phenomena, so that nothing might escape them. Second, to record what he sees, hears, or feels, correctly, concisely and in proper form. And finally, to reason from the observed facts to a sure and true conclusion as to what is the matter with that patient,—the diagnosis—and to decide what ought to be done. For this purpose the dispensary offers opportunities and facilities that are not to be found anywhere else in our modern scheme.

There are four places where students have been taught in this way; first, the office of a preceptor—a physician. Second, at the bedside of his patients in their homes. Third, in the dispensary or out-patient department; and, fourth, in the wards or rooms of a hospital. There were great advantages in the use of the first two places, and the preceptorial system which we have had to abandon in these modern days, had certain very distinct advantages. It did make splendid, practical, well trained practitioners. But it is useless to discuss them, because with the number of medical men we have to train today, and the type of physicians who are doing general practice, it is quite impossible that any considerable number of students should really get very much of their practical training in the office of the private phy-

sician or at the bedside of his patients in their homes. And so we are reduced to the other two possibilities, the dispensary and the hospital ward or bed.

You all know of course that the dispensary has certain peculiar features. First. It is a place for the treatment of the ambulatory sick; that is to say, those patients who are in a condition to walk about, to go to and from the dispensary; they are not bedridden. This does not mean that they may not be very sick patients, indeed they may be hopelessly or incurably ill, but they are able to go to and fro; they are, by reason of that fact, patients from whom a clinical history can be elicited much more readily and easily than it can be gotten from many bedridden patients who are acutely ill. Second. They can be examined by the methods of physical exploration much more readily and extensively than can the bedridden patients. That is one of the difficulties of using bedridden patients for the teaching of those fundamentals of physical diagnosis—that the patient can stand only a certain amount of observation—and in cases like acute pneumonia it is a question whether the patient ought to endure any more than the examination by the physician himself. To allow any considerable number of students to examine such a patient would be a criminal wrong. The student can examine, however, at almost any length, the ordinary dispensary patient. Third. Most of these patients come to the dispensary in the incipency of their illness, and so it is possible for the medical student to see disease in its beginnings, which he seldom does in the hospital ward or bed; and moreover (and I want to dwell on that more at length later), he can be shown the method of preventing further development of that disease or its extension to others, and that is a matter of very great importance.

He sees, moreover, the methods by which the social service worker—and I am sorry to say the social service workers have had to teach us this—ascertains the family conditions. In this matter we have made considerable progress in the last few years in revolutionizing the modern dispensary, and that we owe to Dr. Cabot. The dispensary is, happily, no longer a place where a patient comes in, is examined, given a bottle of medicine and allowed to go—a procedure of very doubtful value in many cases. It has come to be a place where, as in private practice, all of the conditions surrounding the life of that patient are examined into, his home surroundings, his family life, his working conditions, the job he is at, his worries and doubts and troubles which are of vastly more importance oftentimes than anything else. Attention to these matters is often the essential

thing rather than drugs. This the modern medical student has an opportunity to learn in the dispensary.

And, finally, of course, the properly equipped dispensary has the several departments where the student may see the conference between the various special lines; he sees the patient referred to the oculist, for example, to determine whether there is anything wrong with the eyes, whether the headaches of which the patient complains are due to some error of refraction or some muscular imbalance. He sees the patient referred to the aurist and the laryngologist to determine whether there is anything the matter with the ears, or with the nose and throat, etc., and if he follows the patient about, as he ought to do in the proper handling of dispensary cases, he gets finally a comprehensive, accurate view from men of full knowledge of these parts as to all the conditions obtaining in that patient; and that is the kind of knowledge the general practitioner ought to have. I question very much, however, whether we have not tended to run too much to specialism and to direct our students in that way, too, by our methods of conducting the dispensary; but of that, a moment later. So much then for the undergraduate student, what he needs and what the dispensary has to offer him.

For the practitioner of medicine there is need, great need, of much larger facilities for continuation study—I like that term better than any other. I do not like the term polyclinic, because what the practitioner of medicine needs when he goes to the city or some center to refresh his knowledge, is not clinical work alone, by any means; often he needs far more a refreshing of his knowledge of the most fundamental things in medicine, of anatomy, physiology, pathology, bacteriology, which must be ever fresh in his mind if he is to be a good practitioner, and which are so easily forgotten. The term postgraduate is unfortunate because it is confused readily with the real graduate study which in the university and educational circles generally means so different a thing. “Continuation study” seems to be an admirable term to express what the practitioner wants, adopting the term from the public school system, which provides just such courses as that for students who are no longer engaged in the regular grades of the school. Now there are three types of practitioners, three kinds of work that they seek.

First, true graduate work in the university sense. There are not many of those, but exceptionally you find a practitioner highly trained, broadly educated, keenly interested in some branch of medicine like pathology or bacteriology, or on some clinical side, who wants to solve a problem and devote several weeks or months under the best conditions to the study of that

problem, with proper material. He is a graduate student in the best sense, and we are beginning to make provision for graduate study of that type in the clinical branches just as we have had for many years in the universities in the fundamental sciences of medicine. The dispensary offers an amazing amount of superb material for that kind of study, though unfortunately the records in many dispensaries up to very recent times have been so poorly kept that an enormous amount of material has been lost. As I look over the records of our own dispensary and take out the card index, for example, from the diagnosis file of goitre, and see the enormous amount of material that has passed through that dispensary in the last ten years, the number of persons afflicted with that disease, I realize what a superb opportunity for an exhaustive study of that disease is furnished by that material.

Secondly, a limited number of practitioners—and the number must be limited because the demand is not large—but a limited number wish to fit themselves for some special line of practice, for practice of diseases of the nose, throat and ear, for example. They have been in general practice for several years, and now they feel a special interest in that branch, a desire to make a change. Heretofore our specialists in this country have been prepared by the most haphazard methods. A man who wished to become a specialist in nose and throat diseases, for example, attached himself as an assistant to an older practitioner of that branch, and gradually he came to be a nose and throat man. Now we ought to have much better organized facilities than that, and the dispensary affords a peculiarly admirable place for just that sort of thing. We have organized at Rush Medical College within the last year and a half, in that very department, a satisfactory method of procedure by which a practitioner who is willing to stay at least a year, may have an opportunity to thoroughly study the fundamental sciences related to that branch of practice, spending a portion of his time in the dispensary every afternoon, and in connection with it, seeing hospital patients. At the end of a year he can usually secure an internship in some hospital devoted to that special branch of medicine, or he may continue to teach in the dispensary. Thus, at the end of two years, he has had a pretty thorough training for that kind of work.

By far the largest group of practitioners, however, who seek continuation study are the family doctors, the general practitioners who feel the need of brushing up, of refreshing their knowledge of the old and acquiring knowledge of the new, from men who have been more fortunately situated in the teaching

centers, and this demand is growing very rapidly. It is not being met. It is absolutely impossible for the Metropolitan Medical Schools, already overtaxed with their own undergraduate students, to provide these facilities, and here is the great opportunity for the outlying hospital. Every hospital of 100 beds or more, and some even with less, with a good staff, with good facilities, ought to convert itself into a teaching center for the practitioners in that vicinity. If it does that successfully it must make provision for these practitioners for the study of anatomy, of physiology, of bacteriology and of the other fundamental sciences, as well as giving them opportunity for clinical work. I think I see in this plan a partial solution of the growing and very serious dearth of internes.

I do not need to tell you that it is almost impossible for many very good hospitals today to get internes, and that is going to grow worse rather than better because we cannot reasonably graduate in this country more than 3,000 students a year, or else we will overfill an already overcrowded profession. There is a demand already for between five and six thousand internes from the hospitals of this country, and if all hospitals had internes that should have them, and each interne were assigned no more patients than ought to be assigned to him, the demand would be nearly twice that. What is the solution? I think I see it partly in this: I believe that many hospitals might secure resident service from practitioners in that vicinity. They would not want to stay as long as the newly graduated student, perhaps three months or in some cases six, but on the other hand they have the great advantage of an already good experience, they are already pretty well trained, and with possibly some compensation (for already many hospitals are paying pretty good monthly stipends to internes) I think part of the need could be met in this way. With a good library, good laboratory facilities, an eager, earnest, capable staff willing to make some sacrifices, there is not a hospital of 100 beds that cannot become a teaching center for the practitioners in that neighborhood, not only with great benefit to those practitioners, but to the very great betterment of the service which the hospital renders its patients. No hospital does as good work, no dispensary does as good work, as it could do if it were engaged in medical teaching.

Finally, I want to make just a few suggestions as to some of the defects of our present methods in the dispensary. First, I think we have made a mistake in assigning the duty of distributing patients as they enter a dispensary to a non-medical person; it virtually amounts to the patient assigning himself,

and it leads to an intensification of special practice which is not good for the patient and is thoroughly bad for the medical student who witnesses it. I am inclined to think that practically all patients who enter a dispensary, excepting, of course, cases of emergency surgery, where the condition is perfectly obvious, and obstetrical cases, should, every one, be referred, first to the department of general medicine (in the case of children, to the pediatric department) for an exhaustive, thorough examination. The physician in charge ought to be able to make, and to show the student that *he* can make, an examination of the eyes, of the ears, nose and throat, of the pelvic viscera and of other parts of the body now relegated to specialists. He needs to call in the specialist only, and to refer the case to the specialist only, when the condition is obviously one that requires expert knowledge in that particular line. The present system of group practice as conducted in many places is thoroughly bad, because there is no general for the whole group. The eye man is sure that there is an eye defect that is responsible for the headaches, and so something is done to the eye, and it turns out that the headaches are not improved; and the ear man finds something that is surely wrong with the ears, and he does something to the ears and no good comes to the patient. Group practice of specialists is thoroughly vicious unless there is somebody to round up the findings, coördinate them and draw the logical and proper conclusions from these findings, and I think our dispensaries should adopt the plan of referring all patients, except those groups that I have mentioned, to the department of general medicine, first, from there to be referred to the departments where they properly belong.

My second suggestion has nothing to do with teaching except for the example set before the students. There is some ground for the complaint of the medical profession that not enough care has been exercised in excluding from the dispensary those patients who are able to pay a physician. I am quite sure that this evil has been enormously exaggerated by the medical profession. I do not think it affects any considerable percentage of cases, but with the present temper of the medical profession everywhere, there ought not to be any of that abuse at all; there ought to be at least a reasonable effort to eliminate it, because it takes work from physicians which properly belongs to them and that yields compensation, but more because it tends to pauperize the community.

Third, the arrangement of the work in the dispensary hospital for the undergraduate student is, I think, unfortunate in most institutions. Either all the dispensary work is offered to

senior students, or some departments offer work to juniors, and others to seniors. In the department of general medicine, at least, the dispensary offers special advantages for both the beginning student of clinical medicine and the student who is more advanced. To the junior student it offers the best place for instruction in the eliciting and recording of a clinical history and the acquisition of facility and accuracy in physical examination. On the other hand, it presents often a difficult type of case in which to make a diagnosis. There is a mistaken impression that the nearly well man is an easy individual to study medically, and on which to make a diagnosis. Quite the contrary is the case; the merest tyro can detect the case of acute pneumonia, a decompensated heart or a well developed case of almost any disease; but to take the well man or the man who is slightly ill, go over him carefully and be sure that there is little or nothing wrong, takes a highly expert individual and a very thorough examination. Not only the student but the interne in the hospital should have the opportunity to use this dispensary material.

And finally, this is the place of all others to teach preventive medicine. Here disease is seen in its incipency, and I want to say here that the medical practice of the future, and therefore our medical education, lies very largely indeed in the field of preventive medicine. Our physicians must become not so much the family doctor, or rather, not only the family doctor, but the family health adviser as well, if we are to give to our patients the full benefit of modern medicine. We all recognize the fact that the progress of medicine in the last 25 or 30 years has been enormously greater in the line of prevention than it has in the line of cure; our greatest possibilities lie there, and believe me, the public know it. Nobody can read the current literature or talk with intelligent people without discovering the demand there is for the knowledge of these things. Now the average individual, the public at large, are going to demand that they be given the benefits of these advances, and to insist that disease be prevented and not cured. We must train the coming generation of physicians to prevent disease and not simply to seek to cure it. A second reason is this, it offers a source of income which the general practitioner needs and which he has hitherto given away. There is no reason in the world why the physician should not be paid for advising a man—whether he is sick or not, advising him how to keep well and how to keep his family well—either by individual fees, or by an annual stipend. Thirdly, if the medical profession does not do this, somebody else is going to do it for them, and in fact

that is exactly what is going on. Social service workers and the largely endowed foundations are doing just this very thing, because the medical profession has neglected it, and unless we turn our attention to prevention and begin to practice medicine as an art in which prevention offers very much larger possibilities than cure, we shall find somebody else doing it.

Finally, we can have no effective public health service unless we have a general profession, trained in this way, intelligently and sympathetically coöperating with the public health officers as the family health adviser. How is this to be done in the dispensary and medical school? I think not so much by the injection of additional courses in so-called hygiene and preventive medicine into an already overcrowded curriculum, though to a limited extent doubtless instruction in those lines might be amplified. The important thing, in my judgment, the way in which we shall bring this about in the matter of medical education, is by a complete change of attitude on the part of teachers of clinical medicine in every department. I would not have, for example, a case of typhoid fever shown in the hospital, I would not have any case of any disease shown in the dispensary, without the instructor asking before his class, as one of the very first and most important questions, "How did this patient get this disease? Why did he get it? Who is responsible? How are we to prevent the further spread of this disease to someone else? Has he an infected finger? Why did that finger get infected when it might so easily have been kept from infection by proper, early treatment? Who is responsible for not having taught this laboring man that fact? Is he working for a large corporation? Why were they negligent in not making provision for this by the introduction of a modern industrial medical department as so many corporations have done? What is to be done to prevent the further spread of the disease?" What is the duty of the general practitioner in relation to the public health department of the community in connection with that case? Now when we begin to instruct our medical students with dispensary and other material in that way, then we shall begin to have them adopt the proper attitude toward disease and sick people in their communities. Their interest will be in keeping those people well, and when we generally do that and make our public health department equally effective, we shall cut the incidence of disease and of death in this country in half.

CHAIRMAN RANSOM: We shall be glad to have discussion of Dr. Dodson's presentation of this important phase of medical education. I know there are many of you here who are con-

nected with hospital out-patient departments or dispensaries in which some teaching is done.

DR. B. S. POLLAK, Medical Director, Hudson County Tuberculosis Sanitarium, Secaucus, N. J.: I was very much pleased at the splendid paper which was read by the Doctor, and I believe that he touched the keynote of the whole problem. There is one thing, however, that I think we must all confess, and that is this, that in our out-patient department we are apt to be rather careless about the selection of the staff who are teaching or doing the out-patient work. In Jersey City at the General Hospital we have adopted a plan of teaching tuberculosis in the General Hospital, running a dispensary, giving a course of instruction to both physicians and nurses in the practical part of the tuberculosis problem. In order to emphasize that problem we have instituted a ward for tuberculosis, so that the resident physicians, and those physicians of the community who desire to avail themselves of that opportunity, may study the problem. My plea then would be for the installation of a tuberculosis dispensary in the out-patient department of a general hospital, and a further plea for the admission of the tuberculosis patient into the general hospital so that both students and nurses may become more conversant with the subject, and so that the stigma of not knowing tuberculosis may not come to the general practitioner.

DR. MICHAEL M. DAVIS, JR., Executive Secretary of Committee on Dispensary Development, 15 W. 43rd Street, New York: The subject of teaching medical students in the pay clinic is an interesting one. I should like to say this: For a number of years a good many medical schools in their work in hospitals, have used private patients as well as ward patients for teaching purposes, and by taking some care that the request or suggestion that the patient be used for teaching purposes was made in a tactful and appropriate way, they have found no difficulty in the use of private room material in the hospital for teaching purposes. If the psychology of the patient is properly appreciated, teaching becomes a privilege. There is no reason why an out-patient clinic—in which patients pay in the course of their service and receive no charity in the sense of receiving more than they contribute financially—may not use such patients for teaching purposes. As a matter of fact, if I may refer to the experience of the Cornell Clinic during the past year in which I have been able to observe it, no difficulty has been encountered in the use for teaching purposes of the patients paying fees more or less equivalent to the cost. I am inclined also to think that the fact that a pay clinic or private room

patient has a somewhat different attitude toward the doctor than the average patient, rather promotes more individual attention to the case during the period of examination and treatment; also that careful teaching, or at least more careful teaching, is apt to be done on such patients. It seems to me that the understanding by the general public of the significance of medical education is a very important thing, and that the use of private bed patients and pay clinic patients for teaching purposes enables the significance of medical education to reach a class of persons who ordinarily know nothing about it. The average layman has no conception whatever that the teaching of doctors is anything more than the teaching of medical principles in a didactic way. So, for the sake of medical education, I hope that medical educators will more and more recognize and encourage the use of pay patients in the hospital and the clinic.

MR. FRANK E. WING, Director of the Boston Dispensary: I was particularly interested to hear what Dr. Dodson said in reference to the admission of patients first to the General Medical Department. It may be of interest to know that the Boston Dispensary is going to undertake that plan in its evening clinics, beginning next month. Theoretically, we would like to follow the same plan for all patients in morning clinics, but the difficulties are too great. We could not get enough doctors; nor would it be possible to persuade all patients who come for service in the more specialized departments to consent to a general physical examination on their first visit.

The plan will be to have the admission officer request every new patient to have a physical examination in the medical department. If, on taking the history, this department finds some acute condition that makes it advisable for the patient to be seen in some other department on the first evening, and if it seems impractical to give both examinations on the first night, the patient will be referred at once to the special department, where he will be told to come back to the medical department on his next visit.

We realize that a plan like this may be more expensive, as it will require more service in the medical department; also that it will be somewhat of an educative process to persuade the patient to consent to a physical examination in the general medical department, when all he sees is a possible eye, ear, nose or throat defect, or a genito-urinary or skin condition. We do hope, however, that it can be carried out successfully in a certain percentage of cases. If so, we will in time be saved the embarrassment of discovering cases of heart disease, tubercu-

losis, diabetes, or nephritis and similar disorders in patients who have been for several months under treatment for other conditions in some one of the specialized departments of the dispensary.

DR. CASTLEMAN, of the New Jersey Bureau: The hospital can be treated as a teaching unit in the larger cities, where we have medical schools, but can we use the hospital situated in the smaller towns as a teaching unit? Are the staffs of those hospitals so far ahead in knowledge and training of the general practitioner of their own town, that they can be of great assistance in teaching? I think the mistake is to consider the hospital as a teaching unit; it is the staff of the hospital which is important as a teaching unit. The staff in the larger city is recruited principally from the persons connected with the universities and medical schools. The staffs of hospitals where there are no medical schools are, to a certain extent, ahead in knowledge of the men outside the staff; that is perfectly natural, because those persons are more likely to seek positions on the staff; but I do not feel that in the smaller hospitals the staff is equipped to teach the general practitioner; the staff will have to be taught first.

MR. RICHARD P. BORDEN, Union Hospital, Fall River, Mass.: I am a little interested in this proposition as trying to put aside the duty of the hospital as a teaching unit in its community. It may be true that the staff does not know enough to teach others; but the hospital affords to the staff an opportunity to teach themselves, which they are now neglecting. I only wish the address that has been made could have been made before the American Medical Association or some organization of physicians, because the opportunity which hospitals offer for the education of the medical profession, beginning with the staff of these hospitals and continuing to the internes and all those that are brought in connection with the hospitals, is too great an opportunity to be lost. The difficulty is, however, that the physicians neglect the fundamental field for professional observation, which is the out-patient department of the hospital, because the practice is not as exciting and is not as interesting as when they come in contact with the more acute forms of disease. It seems to me that professionally there could be no more interesting place to a physician than the diagnostic field of a dispensary, because there they must use the utmost degree of their intelligence and wisdom to perceive the physical trouble, diagnose it, and then determine what action shall be taken subsequently.

I have no doubt from the experience in our own little insti-

tution that the educational function of the hospital has been greatly developed since the requirement of the American College of Surgeons for clinical staff meetings. The education is not going outside of the members who come to that meeting at the inception, but it is bound to spread through the community. We now invite all the reputable physicians in the community to attend the clinical staff meetings, where the troubles of the hospital with relation to the physical needs of its patients are discussed. But in the first place, we have got to overcome the lack of interest in physicians and in internes and in the hospitals themselves with regard to the patients in the dispensaries. How to do that I must confess I do not know; but if it could be done, the field of medical education would be greatly broadened by the use of the provincial hospitals throughout the country.

MR. JAMES R. MAYES, Superintendent of Garfield Memorial Hospital, Washington, D. C.: In connection with referring all cases to the General Medical Division, the question incidentally was brought up whether the patients were willing to go to the trouble of that extra examination, and my answer is that if they are going to diagnose their own case, they'd better not come to the dispensary.

CHAIRMAN RANSOM: Dr. Dodson, do you wish to say a word in closing the discussion?

DR. DODSON: Two or three of the points in the discussion I should like to comment upon: First, the selection of men for the staff; I entirely agree with, I think, the first speaker, that one of the greatest mistakes a hospital can make is to assign its incompetents to the out-patient department. If competent men are needed anywhere, they are needed there; but it is not easy to get them and it is not easy to keep them, unless the work is made attractive by a liberal salary, or, better still, by making the dispensary a teaching center. Let me give a practical illustration which had to do with the very institution of which our Chairman is now the head. It was for many years the leading dispensary in Chicago, in a very thickly congested district with a great many sick poor, a large clientele and an excellent staff; but it became tedious work for the members of the medical staff to go to the institution two or three or four times a week, especially on hot summer afternoons, to see cases, a great many of which were not of much importance or of much interest. The attendance of the members of the staff fell off until it was only about 50 per cent of perfect. About 20 years ago Rush Medical College arranged an affiliation by which it became an *extra mural* center of instruction. It is situated about

a mile and a half from the institution, but students gladly went that distance provided the arrangement was such that they could spend a whole half day there. Within half a year after this arrangement was made the Secretary of the Board of Trustees of the dispensary said publicly that the attendance of the members of the staff had increased from between 50 or 60 per cent to about 95 per cent. Why? Because these men had something to interest them when they went to the dispensary. It is a totally different thing examining, on the one hand, patient after patient with some trivial disease, and, on the other, seeing that same patient before a group of alert, keen-eyed students to whom the diseases are new and of great interest. The dispensary is doing a double duty when it becomes a teaching and study center. Nothing will increase the interest of members of the dispensary staff so much as to make it a teaching center for the practitioners of the neighborhood.

I am glad that Mr. Davis referred to the pay clinic, for I want to set myself right. I am thoroughly in accord with the pay clinic. The patient who needs a \$10 operation and cannot afford to pay but \$1 for it, is just as much entitled to get that service for the \$1 (and ought to pay the dollar for it) as the pauper is entitled to get treatment for nothing. What I am objecting to is the carelessness with which, in many communities, little or no effort is made to inquire into the condition of the patients who come there. When practitioners, mayhap graduates of the very medical college with which the dispensary is connected, say: "I passed by there yesterday and saw people drive up in limousines and with fur garments and go in to get free treatment," there is no adequate reply unless one can say, "We did investigate them, and the facts in regard to this patient were such as to entitle him to free treatment." That is quite a different thing from accepting money for a frankly pay clinic.

As to the use of pay patients, I should go further than Dr. Davis and say that no patient should ever be used for teaching purposes unless he is willing to be so shown, I care not whether he is a pauper or a millionaire. No patient with an interesting condition, however, ought ever to be deprived of the opportunity of going before a clinic, but ought always to be asked to do so. The distinction made in this regard between so-called clinic patients and private patients ought to be wiped out absolutely and this is being done in many institutions. There are patients in the vicinity of our hospital who pay \$2 and \$3 a day, when they could go to a hospital of their own faith and be treated for nothing. Why? Because they want to be shown to medical students; they get a kind of attention in that way which

they like. They believe they get a better service, and I believe so, too, by very virtue of the fact that they are used as objects of demonstration of disease.

As to group practice, I still insist that the group must have a head, a general medical man, if it is to do good work. It is not possible to escape the narrowing tendency of specialism, and, to secure a sound, dependable diagnosis, the findings of the several specialists in any group must be reviewed and analyzed by a competent general practitioner, however capable and honest the specialists may be. Why is the member of the staff of the city hospital wiser than his country brother? Principally because he teaches medicine, that is all; he keeps himself alert, alive, up to date, because of the stimulus that that job affords him. He is not any wiser fundamentally than his country brother. Indeed, the city brothers need to be rejuvenated every little while by an influx of physicians from the country.

THE OPPORTUNITY OF OUT-PATIENT DEPARTMENTS TO TEACH THE PATIENTS AND THE PUBLIC

Haven Emerson, M. D., Professor of Hygiene and Public Health,
Columbia University, New York City.

While 483 of the 1,454 out-patient departments in the United States do some teaching of physicians, internes or nurses, I doubt if a dozen could claim credit for any success in teaching their clients or the public.

The dispensary, like the public school, the medical college, and the church, is a public utility plant, used but a fraction of the possible time of its employment. As we begin to separate dispensaries from hospital accounts this distinction of most dispensaries in wastefulness will stand out, and hospital managers will find a satisfaction in making the out-patient department as nearly a twenty-four hour, one hundred per cent, capacity undertaking as the conditions of traffic and good medical and surgical technique permit.

Entirely apart from the heavy financial carrying cost of the dispensary plant, there is the waste of time of the patients, actual and potential, who constitute its clientele. The average waiting, or waste time, of dispensary patient is about one hour, while the service time is about ten minutes. Of the services given at a dispensary, even in the case of surgical dressings, or for medical examinations, the time-consuming part is that devoted to approaching the patient's intelligence and impart-

ing the lesson or message upon which the recovery or relief will depend, often more than upon the specific treatment given.

Picture the usual dispensary waiting room with its wealth of unused opportunities, its efficient misuse of the waiting hours of its attending thousands. Is there not some window we can open through which the patient, the guardian, the parent, can have a glimpse into the mind, the idea, the hope of the physician, the nurse, the social worker, upon whose trinity of training and service the ailing and the dependent must lean for personal or family reconstruction?

Can we not use the spirit in which these applicants for health come to the dispensary as a helpful introduction to those matters of general information upon which so many treatment programs depend?

Because a person has an earache, that is no reason why the eyes can not be used in reading of the rules for health.

Can not a patient who returns for follow-up for diabetes learn much of the possibilities of dietary range, from illustrated charts of approved foods?

Will not the mother who brings the little girl for treatment of scoliosis or flat foot learn much from reading the graphic stories of the American Posture League? Instances might be multiplied in each of the specialties represented in dispensary services.

In San Francisco, two of the University Hospital Children's Clinics have seized upon the success of the health play, the marionettes, the Cho Cho material as used in schools, and have developed many lines of attractive, ingenious entertainment for the education of the little patients in nutrition, personal cleanliness and good health habits.

We have no business to be so intent on our own professional, medical, nursing, social, administrative job at a dispensary that we forget that what we are about is some kind of *doctoring*,— and that is a good Latin equivalent for *teaching*. All the ingredients are ready to hand,—the person, or even better still, the persons, groups of them bound together by common interest in that most democratic of all things, *disease*; the state of mind essential for learning, created by desire to avoid further suffering or hope of return to health; a trustfulness and faith in the teacher that is one of the elements of pedagogic inspiration; the place and the time, and, what is of more importance than anything except the pupil, something urgent to be taught, a matter of life and death, a matter of pain or blissful sleep, a problem of salvaging a family or losing the home.

It is true there have been for many years classes for the

constipated, the nephritic, the diabetic, the thin, the fat, the expectant mother, the trachoma child, the peculiar or exceptional child, etc., etc., and by such classes the time of the physician, and sometimes of the nurse, has been saved and a certain necessary individualization of the patient has been lost.

What we are speaking of now is something quite different. The dispensary as a place of public assembly where the audience selects itself for particular objectives might, in a most elementary form, offer instruction by printed word and painted lesson, by raising a smile or rousing curiosity, while the waiting sufferers sit facing the wall. In its logical suitable development, this simple teaching by bill poster or advertising sign could be expanded to include a beguiling entertainer whose business it will be to pick up the patient on admission and keep him or her, young or old, thinking and asking questions up to the moment of escape into the examining or treatment room. This teacher may be the hostess of the permanent health theatre where the automatic slide machine is spreading some new and fascinating truth of health upon the screen, or where instruction in bed making, baby bathing, even hand or head washing, takes turns with demonstrations by the nurse in preparing barley water or pasteurizing milk.

And why should it be a strange idea to have the dispensary, whether attached to a hospital or not, a place for local community interest after dispensary hours, a place to which the seeker for health, as well as he who longs for recovery from disease, shall repair? In others words, it is not fair to expect to have the dispensary held responsible for using every moment of the patient's time in teaching, and every reasonable hour of the day and night for the useful exploitation of health as part of the function of the plant?

At the risk of being misunderstood, may I suggest that if the dispensary doesn't go to the Health Center, it must make a health education center of itself.

It is not unimportant that we have created lines of traffic from the home to the hospital and the dispensary, and the opportunity is at hand to capitalize the credit of the institution by extending its university functions to the patient, his friend and his family.

Is there really no room in most dispensaries for a showcase containing shoes of correct shape, babies' clothes of a safe and useful design, or even horrible examples taken from suffering patients? Think of the fascination of the anatomical museums, the shows for men only, the baby show at the county fair! Can't we take a page from the showman's book and use

the honest, clean curiosity of humans about their own insides as a means of teaching the occupational hazards of the dusty trades, the path of the hookworm from skin to intestine?

True, this will all take more room, more staff, more money, but isn't investment in brains less expensive than any other kind? And can we honestly escape the obligation to use time, place, interest and the patient to teach a few of the simple lessons of health?

Some generous hospital trustee should offer a free trip to Yellowstone Park to the dispensary administrator who makes the best educational use of the dispensary without increasing the budget, the judges to be selected by the President of the American Hospital Association.

The meeting then adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fourth Annual Conference, Atlantic City, N. J., September 26, 1922, 2:30 p. m. Chairman, Miss Lulu G. Graves, Supervising Dietitian, Mount Sinai Hospital, New York City

SECTION ON DIETETICS

CHAIRMAN GRAVES: I think we need no further demonstration of the interest that is rapidly growing in the hospitals today—in the hospital world—regarding dietetics, than to see this goodly number of people present at this our second annual meeting of the Dietetic Section of the American Hospital Association. We feel that it is a very great privilege to be a Section of this Association and we also feel the importance of the very close coöperation and working together of hospital superintendents and dietitians, and the value it may be to both groups to have this Section continued and perpetuated, and working together with it. Our subject is so new and our profession so new that there is still very much room for discussion and suggestion, and for improvement in this work, and we are hoping through these meetings to bring this about. The work of the dietitian and the subject of dietetics covers the entire field, we might say, of every other department, to some extent in the hospital. It covers not only the feeding of the people who are sick, but also the feeding of the people who are well and associated in the work of the hospital. No small part of it is included in the feeding of children, and we hope to have had this subject discussed this afternoon.

DR. FRANK HOWARD RICHARDSON, Children's Department of Brooklyn Hospital, Brooklyn, New York: Ladies and gentlemen of the Section on Dietetics of the American Hospital Association: I think it is a rather painful thing to see an amateur stand before a body of experts and lecture to them on their own job. You are a body of experts, or you would not be here today as Members of this Section. Unfortunately, I am not an expert on dietetics; I am simply what is called in the part of the country where I spend my summers, a "baby doctor." Very few children's doctors will admit that they are not experts in dietetics; but if any children's man tries to impress you with that idea, just ask him to put up one of his own formulas. Very

few of us would care to demonstrate our expertness to that extent.

THE RELATION OF THE HOSPITAL AND THE CHILD: A SUGGESTED SOLUTION

By Frank Howard Richardson, M. D., Children's Department,
Brooklyn Hospital, Brooklyn, N. Y.

In this discussion I am more concerned with minimizing the time to be spent by the child within the hospital, than in considering how he shall be fed while he is there. In other words, the needs of the hospital as related to the child must constitute our sole criterion in considering every aspect of our problem.

It is only fair to face the fact that the children's hospital and the children's ward, as constituted in most places today, are really on trial, and are called upon by thinking folk everywhere to justify their existence, or at least their existence under ordinary conditions as we meet with them.

The ideal relation existing between the hospital and the child has long been a subject for keen debate. It used to be generally accepted that there was nothing better for any sick child, whether rich or poor and of whatever age, than to be subjected to the regular, steadying regimen of the life of the hospital ward, with its carefully regulated diet, its freedom from excitement, and its cleanliness and perfect sanitation. It took some of the horrifying statistics of some of the big institutions which care for children, with their 100 per cent mortality rate for infants who stayed long enough in their wards, to jolt us out of this complaisant mood and to make us wonder whether such mortality records could coexist with a fair deal to the hospitalized child, no matter how beautifully white the walls and the beds of such wards might be. Such figures as these—and they can be matched without much trouble today wherever infants are brought together in wards and kept for any length of time—cannot be gainsaid; it is admitted by us all that the bottle fed baby fares wretchedly even in the best of wards.

And yet not every pediatrician is willing to go so far as does Chapin, for instance, in feeling that every institution for the care of children, except those providing only the most transient and transitory care, is a curse to the child. Of course, "hospitalism" as seen in the wan, listless infant who refuses to thrive on any mixture, no matter how well-adapted theoretically to his needs, or as seen in the "good" child of the oldtime orphan asylum, with his uniform clothing, his lockstep play, and his brooding air of detachment and lack of interest in life, is going

to find no defenders today among thinking people, especially among such a gathering as this. But is even the possibility, much less the probability, of such a commonly observed phenomenon, for instance, as cross infection, not enough to render the admission of a child to a hospital ward at least a very real hazard—to which we must subject that child only after determining that the gain is far in excess of the possible harm? As serious students of the hospital problem in all its bearings today, it behooves us seriously to consider and weigh the “pros” against the “cons;” to evaluate both, justly, in order to arrive at a conclusion which shall be satisfactory to us as hospital specialists, and as human beings.

First, then, the “pros,” which are not only manifold but plainly manifest, and seem to admit of no denying. Certain conditions one thinks of offhand: such are surgical procedures practically impossible of accomplishment outside of hospital walls; the nursing problem, with its excessive financial drain upon the purses of even the more than moderately well-to-do, especially in such long-drawn-out cases as typhoid, or some of the surgical infections; the exigencies of such a treacherous, fulminant disease as pneumonia—with its demands for constant attendance and constant alertness on the part of both doctors and nurses; the sudden deprivation of parents, either by death or by disease or accident, with its consequent temporary “boarding” of the well child in the ward; all of these seem to constitute almost insuperable reasons for the hospitalization of children (using the term here in its original and best sense).

The “contras” have been hinted at above. The appalling death rates of infants in even the best-regulated of infant wards, if they remain there for any length of time; “hospitalism” in its worst sense, a condition that no clinician or experienced nurse needs or cares to have called to mind—with its picture of unavoidable and early dissolution stamped on the tiny faces of its victims; cross infection, that bane of everyone who deals with children in institutions; the frequency with which a child, well on entering the institution (the so-called “boarder”) becomes a sick child before leaving; the marked reluctance of parents of any social or economic status to give up the care of their children unless absolutely unavoidable; the usual extreme terror of the average child at the mere mention of the separation involved in hospital admission; the mental effect upon the child of the sights and sounds of a hospital, with the inevitable resultant psychic trauma and scar; the unnecessary expense of detaining in the hospital for long periods of time with the well known high per diem expenditure, such cases as

long-drawn-out orthopedics, interval or terminal convalescents, and the consequent occupation of beds that should be available for really acute cases—all these constitute the other side of a picture that at times seems to present an overwhelming case for the negative—too depressing, not to say uneconomic, to be allowed to continue.

What, then, are we to do? What can be suggested as a possible solution of the problem? Can we fairly and truly say that the hospital treatment of children is out-of-date, as Chapin virtually does; and lives out his conclusion in the establishment of his wonderful system of Speedwell Orphanages, where the children and infants are boarded or adopted out, with only the shortest possible detention in hospital on the way. Or shall we say that the children's ward, as ordinarily conducted, has been with us always and must always continue as it is? Or is there perchance some middle ground which we can find, and on this erect our structure?

My own belief is that we have ready to our hand—although so far not very widely utilized to its fullest extent—an agency that offers the ideal solution of this very real hospital problem. This agency is the properly conceived and properly run out-patient department, with its logical appendage, the nutrition or health class. For such a department is nothing more or less than an amplification of the children's ward, with a multiplication of its opportunities for service; which takes over every conceivable phase and function of the children's ward except such as absolutely demand the facilities offered by the ward, and not available elsewhere.

I am, of course, speaking here of the out-patient department which is staffed by the identical men who compose the intra-mural staff of the children's department, and which functions as an integral part of the pediatric service, with a single record that passes freely with the patient from clinic to ward, and vice versa, as circumstances vary and inside treatment becomes imperative or ceases to become so, and outside care becomes possible. I am, of course, barring out from discussion the more usual conception of a children's clinic—as a nuisance imposed upon the juniors of the service, to be pushed by them, if possible, upon the shoulders of young practitioners not connected with the hospital staff who do not know any better than to be thus imposed upon.

Under such a perfectly coördinated system as we are supposing, supplemented by the coöperation of the up-to-date social service department, every case is carefully and fully studied while at home and every appropriate diagnostic aid is applied

before the child is asked or allowed to enter the hospital. Many an acutely, even desperately, ill child may never need ward care at all. If, however, a hospital sojourn proves unavoidable, it is reduced to its shortest possible extent, for it does not begin until the latest possible moment and is terminated the very moment the child has recovered sufficiently to be carried home in its parents' arms, and brought back to the clinic for follow-up work. There is no break in continuity of attendance, as the medical attendants are the same outside as in the ward; the visiting nurse takes over the functions of the ward nurse; and special diet, where needed, is directed, supervised, and if necessary provided, by the social service department. Return visits are secured as a matter of course; for even quite seriously ill pediatric cases may be handled as ambulant cases both before and after their stay in the ward, in the sense that they can safely and easily be carried to the clinic, whereas equally ill adult patients could not be so handled. The fact that the same doctors who made the first contact with the case, studied it before its admission and carried it through its sojourn in the ward, are the ones who will go on with the conduct in the out-patient department, renders such return visits almost a matter of course.

That most useful appanage of the out-patient department, the nutrition class, carries all these advantages to the nth power. For here we already have in operation the nearest approach to the ideal of preventive medicine that has so far been made available for general hospital use in a community. Here we have at work the machinery for giving the child, before acute illness comes upon him, the complete, all-round, searching examination that the life extension institutes have rendered available for adults, the inter-departmental liaison, if you will, that alone can adequately provide an examination so much wider in its scope than medical pediatrics alone is prepared to give. Here we have, too, the confidence in the doctors born of intimate friendly acquaintance with them in time of health; the familiarity with the hospital, the nurses, the dietitian, the social service workers and volunteer aides, growing out of the happy times spent at the weekly sessions of the nutrition class, with its games, its fun, and its frolics; and the realization, early impressed upon every child and every parent, that immediate treatment of every symptom, whether serious or trivial, is the only safe and sensible course. All these conditions combine to make an ideal patient, in an ideal frame of mind, whenever entrance into the hospital does become necessary.

It goes without saying that such an ideal milieu for the hospital patient exists only in the hospital whose out-patient,

pediatric department is an integral part of its children's service, such as has been sketched above, with identical staff, single record, and absolute ease of transfer from out-patient to in-patient service, or vice versa, as occasion may require. How simple and rational such a condition of affairs seems; and yet how rarely is it to be met with in actual hospital practice! I venture to go to the logical limit implied by what has gone before, and say that the hospital which lacks such a coördinated children's department is wasting the money entrusted to it by its donors, is depriving needy children of bed space that they should have, and has no right to attempt to minister to children at all!

I cannot close this paper without saying just a word as to the modern trend in the feeding of infants, on the part of the best pediatricians. Whereas there was a time not so very far back when doctor vied with doctor in the creation of milk formulas that exhausted the resources of the higher mathematics to comprehend, much less to prepare, there has of recent years been a most healthy reaction in the direction of what has come to be known as "simple dilutions." Hand in hand with this simplification of what is done with milk after it comes to our hands, or perhaps lagging a step or two behind, has come a realization that perhaps it is even more important to know and to control what happens to this highly perishable and most easily contaminated product before ever it comes into the diet kitchen at all. In other words, whereas it may be beyond dispute that "pigs is pigs," it certainly is not equally true that "milk is milk," at least in our vast metropolitan areas today, if by "milk" we mean a food that is clean and decent enough for our babies. It must come to be realized, on a far greater scale than has so far been the case, that the only milk fit to be given to an infant or a child, inside the hospital or out, is pure, fresh, unaltered, uncontaminated, sweet-smelling and sweet-tasting cow's milk; and quite as important is it to realize (I say it advisedly), that the only milk that conforms to these simple and minimum requirements, in these huge cities of ours today, is certified milk. I would urge you as dietitians, who would be amazed and scandalized if you were asked to prepare for your patients tainted meat, cold storage poultry, third class eggs, or dirty or wormy cereals—to take equally high ground on any and all occasions when the opportunity comes to you, with regard to the milk that you are asked to modify for the little ones who look to you for the means of subsistence, and to urge upon your superintendents the desirability of procuring certified milk for the children's diet kitchen.

DR. A. B. DENISON, Assistant Director, Lakeside Hospital, Cleveland, Ohio: We have taken the first step towards working out a combination between Social Service and Dietetics in the establishment of food and nutrition classes for patients in our out-patient department. We have not progressed far enough as yet to know just exactly how we are coming out, but so far as we have gone it has worked out very satisfactorily indeed. It has given us a very much better idea of the composite picture presented by a dispensary patient. It shows us that every patient coming to the dispensary with a nutritional disease has both a social service and a dietetic aspect.

In diabetes, for example, the patient must of necessity have a dietary treatment in addition to medical treatment. At the same time he presents a social problem, and we can get a proper appreciation of the patient by a combination of the two viewpoints—namely, dietetic and social service. That is what we are trying to work out.

MISS FRANCES STERN, Boston Dispensary, Boston, Mass.: We have definitely worked out in our out-patient department a relation between the medical, the social and the dietetic service. Many of the cases needing medical treatment present also a nutrition problem. All of these we send to the Food Clinic. We are not very far advanced as yet, but, in common with other things, there must be a starting point.

MISS SUSAN C. FRANCIS, Supt. Children's Hospital, Philadelphia, Penna.: At The Children's Hospital of Philadelphia we have a department devoted exclusively to the prevention of disease. The functions of this department include the usual hospital social service work and the follow-up nursing for the ward and dispensary patients, and, in addition, health promotion work for the children living in the city ward in which the hospital is located. The chief emphasis of this work is placed on nutrition. Instruction in nutrition is given to individuals and also to groups. Our health teacher, who has charge of the group instruction, conducts classes and conferences for mothers and children. A nutrition class for pre-school age children has been very successful. Demonstrations of the preparation of foods are given and we find the children will often eat those foods in a group which they refuse to touch at home, and in this way the desire for good food may be acquired. Mothers are taught to make definite plans for each day's meals. They have been taught how to broil, stew, bake and steam instead of frying the food for their children. The mothers receive practical instruction in food values and the art of combining foods so as to obtain the greatest amount of nourishment at the least ex-

pense. They are taught to appreciate the advantages of food tastefully prepared and served. All the work in the department is based on the importance of routine, thorough medical examinations in order to produce well-nourished children.

A MEMBER, Municipal Hospital, Philadelphia, Penna.: We have a heart clinic. Dr. Stroud just started it for diphtheria patients, and they are brought back to the hospital. It seems in diphtheria their heart is affected very much, and we are now bringing children back who left the hospital really unfit. The dietetic department started to keep track of their weights, and to see that they get the proper food. The assistant dietitian now is teaching the older children to cook, and when they go home we are going home with them, and with the social service workers we can keep up their feeding.

DR. MALCOLM MACÉACHERN, The Vancouver General Hospital, Vancouver, British Columbia: I thought probably you would discuss the subject announced from three angles, i. e., babies under two weeks, which we call newborn, and those sick babies under two years and then two years to ten years.. The group of children which are being neglected in hospitals in feeding, as I have seen it in many institutions, are children from two to ten years.

CHAIRMAN GRAVES: Has anyone carried out that investigation for from two to ten years. Give us some of your experiences, Dr. Richardson.

DR. RICHARDSON: The last speaker said that the diet of these children is neglected in the hospital. Unquestionably, it is. I have known a mother in the home to be ignorant in matters pertaining to the diet of her child; but I have never known her to show a lack of interest in how the child likes its food. Send the dietitian into his home, and she can in two or three visits teach his mother to give him such a tasty diet as the hospital can never hope to compete with.

The discussion has brought out the fact that in different hospitals, different classes of patients have been stressed as being the agencies where the health and diet of the child should be looked after.

At the Brooklyn we have attacked the problem in a little different way. While we have all these classes, we have tried to get away from such a departmentalizing of the work that a child gets lost to one department when it goes into another. We have tried to keep the nutrition class the center.

THE RELATION OF THE DEPARTMENT OF DIETETICS TO THE HOSPITAL COMPOSITE

Miss Marion Peterson, Supervisor of Administration in the Department of Dietetics at Lakeside Hospital, Cleveland, Ohio

The organization of a hospital is like a many sided polygon, each side of which represents a department. There is a department of medicine, a department of nursing, a department of dietetics, housekeeping, social service, anæsthesia, etc. Each department exists primarily for the purpose of contributing to the efficiency of the hospital as a unit. Development in any one department should extend only as far as it will be a help to the whole system of organization. The ability of the hospital to function at its best is dependent to a great extent upon the inter-relation existing between the various departments.

The value of hospital morale cannot be rated in dollars and cents. It is determined by the way in which each department operates. Because of the very nature of its work, the Department of Dietetics has an opportunity to coöperate with, and be of service to every other department in the hospital. When the dietitian is responsible for the three meals a day, there is a direct point of contact between the Department of Dietetics and every individual in the hospital.

The problem of feeding doctors and nurses is enormous. Many of them are residents for long periods of time, during which the best institutional food becomes monotonous. Therefore, no effort should be spared in planning meals which will give satisfaction. This element is maintained only by including a variety of well prepared foods in combinations which will be surprising and interesting. Moreover, the term variety does not necessarily imply the use of the most expensive foods. Where the workers are fed adequately and to their liking they will be less disposed to purchase food elsewhere, a thing which many of them cannot afford to do. They will be happier and healthier, and able to maintain a higher level of efficiency in their work.

Good service to the personnel of the hospital also means that doctors and nurses detained until late in the operating room, or in the wards, will be given special attention. They will be served a hot, palatable meal instead of cold left-overs. Night nurses will receive freshly prepared, tempting midnight suppers rather than food which was salvaged from the noon meal. Nor will these efforts go unappreciated. Furthermore, the serving of meals which satisfy will result in a decrease in food waste. More of the food prepared will be eaten, and less relegated to

the garbage can. It frequently happens that a special diet is ordered for one or more of the hospital employees who are under medical supervision, but are not bed cases. It is difficult to provide this diet through the regular dining-room service. One solution has been offered in the establishment of a special dining room in connection with the diet kitchen. The meals are prepared and served by the nurses as a part of their special diet training.

The direct relation of the Department of Dietetics to the medical profession may be reached through the patients themselves. Dietetic treatment will be based on the principle that each patient is an individual and entitled to the same individual consideration where diet is concerned as he is given in the field of medicine or surgery. This becomes possible when the dietitian may visit each patient. With a knowledge of his food habits as effected by racial and religious customs, and the probable amount of money which the patient can spend for food at home, she will be able to plan his diet intelligently. It will be suitable to the metabolic disorder as well as pleasing to the patient. If an Italian received an occasional dish of spaghetti, or a Scandinavian his pickled herring and boiled potatoes, how very much more contented he would be! He would feel that someone had taken an interest in him, and that a hospital was not such a bad place after all.

Very frequently the dietitian finds it difficult to prove to the doctors the value of dietetics. She should spare no effort in doing her best to help the doctors obtain results with their patients. Our experience has *proved* that when serious effort has been put forth, the doctors have responded with an attitude of splendid coöperation and a willingness to acknowledge the value of the department.

The relation of the Department of Dietetics to the patients does not end when the patient leaves the hospital. For some time prior to his time of discharge, the patient will receive instructions concerning his diet in the hospital and its readjustment when he goes home. Frequent home visits will be made by the instructor in the food clinic, in order that the patient receive help and supervision during that period of readjustment to home conditions. Since most of the ward cases become dispensary cases for follow-up purposes, the Department of Dietetics still has an opportunity to be of service to the medical profession.

The dispensary or food clinic work suggests other possibilities. Medical care plus dietary supervision may be the means of preventing the need of hospitalization in many cases.

The following case which has been brought to our attention serves to illustrate the point: Mr. H. was a night watchman, on the point of giving up his job because of illness. A diagnosis of duodenal ulcer was made. Medication and a restricted diet were begun at once. Home visits were made by the instructor in the food clinic, and the patient's wife was enlisted in the service. She received instruction concerning her husband's food, with special attention paid to the midnight lunch. The results were interesting. After two months treatment, there had been a continued absence of pain and a gain of thirty pounds. Mr. H. did not lose a day's work, and was able to keep the family on its feet financially. Dietetic and medical supervision are to be continued indefinitely. How very much better it is to keep the patients out of the hospital when possible, thus leaving a greater number of beds available for other cases.

Work of this kind brings a point of contact with still another department, namely, Social Service. Very close coöperation is possible on cases of this kind, from which the social worker and the instructor in the food clinic may derive mutual benefits.

The educational function of a hospital should be extensive in its scope, and show clearly the inter-relation of the composite parts which go to make up the organization.

It should be made possible for the patients to assimilate much knowledge while they are under our care. If a man comes into the hospital with a broken leg, and goes home having received nothing but surgical or medical care for the injured member, the hospital has not made the most of its opportunity. He might have learned much about hygiene or sanitation as well as about food. All patients who are visited by a dietitian may be taught why certain foods were used, how they were prepared, and how they may fit into the family dietary when the patient has returned home. Recipes should be given out at the time of instruction.

The teaching of pupil nurses holds an important place in the educational program of the hospital. Recent knowledge of dietetics has created a widespread interest within the medical profession. Realizing the soundness of dietotherapy, many doctors are demanding a great deal more of this knowledge from their nurses. Public health and school nurses are looked up to by mothers and children, and are supposed to be an authority on all questions of diet as well as medicine. Therefore, pupil nurses must be trained to meet this increased demand for this special knowledge. It will be possible to obtain this knowledge only by actual case work. They should follow the diet from

beginning to end. They should plan, prepare, and serve all food to the patients assigned, and record the food intake of the patient. By personally serving the tray to the patient, the nurse will take an interest in the individual. Consequently she will use greater care in planning and preparing his diet. Complete records of the food intake of the patient will be available at any time for the doctor. This intensive dietetic training for the pupil nurses will be possible, of course, only with a full time instructor in the diet kitchen.

In connection with the educational aspect of hospital dietetics, it might be interesting to mention an arrangement which exists at the University of Michigan Hospital. Some of the convalescent children and others who are able to be up, come together at one time for their meals. Small tables and chairs and dainty dishes are provided and special effort is made to teach the children to like the food which is good for them. The mothers are frequently present at this proceeding, the value of which is probably 25 per cent to the child and 75 per cent to the mother.

There are many other groups of people who may be glad to accept the instruction the hospital can offer through its Department of Dietetics. In some institutions the internes are given instruction in practical dietetics to supplement the theoretical knowledge they have received during their training. There are also the student dietetians, who must depend so much upon what they can derive from their course of apprenticeship. The Department of Dietetics should be maintained with the finest possible organization in order that these students may receive the right sort of background.

In this connection, there is frequently an affiliation between a university in the community and the Department of Dietetics. One university at the present time offers to senior students in home economics, a course giving nine hours a week in the Department of Dietetics in a nearby hospital.

One hospital has made it possible for many of its employees—namely, the maids—to receive regular class instruction on hospital time. With an arrangement of this kind, they may be taught principles of hygiene and cleanliness, as well as simple cookery. There is an opportunity to teach them food economy and how in their homes they may achieve a good variety of food on a limited income. There are two points of significance suggested here—the coöperation which this work would necessarily bring about between the Departments of Dietetics and Housekeeping, and the influence it might have upon the community. The place of the hospital in the community is com-

posite. An attempt has been made here to suggest a variety of ways in which the Department of Dietetics may contribute its share toward the general usefulness of the hospital. What the hospital, through the Department of Dietetics, contributes to the community will be, not the ideas and policies of this individual department, but the dietetic ideas and policies of the hospital administration.

REPORT OF THE COMMITTEE OF FOODS AND EQUIPMENT FOR FOOD SERVICE,

AMERICAN HOSPITAL ASSOCIATION, 1922

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Miss Rena Eckman, Household Director, University of Mich. Hospital, Ann Arbor, Mich.

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Read at Atlantic City, N. J., Sept. 26, 1922.

In the construction and proper operation of the dietary department of a hospital the executive encounters a diversity of detail which equals, if not exceeds, that pertaining to those hospital departments dealing with strictly medical subjects. The dietary department and the service rendered by it are important, first, because the maintenance of this department represents from twenty-five to thirty-five per cent of the hospital's operating expense. Secondly, because the kind of food served by the hospital is often the principal means used by patients in judging the institution. Thirdly, because improper selection, preparation, or serving of food can have a direct detrimental bearing upon the condition of the patient. Fourthly, because in certain cases the proper food, and that alone, can relieve the patient of his disease. It is evident, therefore, that we should spend just as much time, just as much effort, and just as much money for the purpose of providing efficient food service as most of us do for our laboratories, our X-ray departments and our operating rooms.

The subject is such a vast one that a report of this sort cannot attempt to cover it.

The location of the kitchen is a matter which has often been debated, the three locations most used being:

1. The ground floor or basement,
2. The top floor of the hospital,
3. A separate building.

Each one of these locations has its advantages, and the committee holds no particular brief for any one type. A kitchen on the ground floor is sometimes considered undesirable because it is likely to be dark and poorly ventilated, odors are more likely to reach the parts of the building occupied by patients; and employees, having ready access to an outside entrance, have been said to have more temptation toward petty thieving. The top floor kitchen has been condemned by various writers because of the fact that it utilizes a part of the hospital which is most desirable for housing patients, that the transportation of food supplies to the top floor is costly and troublesome, and that when the kitchen is on the top floor there is frequently wasted space on the ground floor of the hospital. The kitchen in a separate building is often necessary in large institutions built on the pavilion plan. The main objection to this location is the problem of transportation of food, although certain writers claim that it is quite possible to transport food in a warm and palatable condition a distance of one-half mile, provided there is the proper equipment. Proponents of the ground floor location state that the question of ventilation and odors is no longer of any importance because modern methods of artificial ventilation have solved this efficiently. All three of these locations for kitchens are to be found among the five hospitals represented on our committee, and each superintendent is evidently well satisfied with his or her arrangement.

The architectural divisions into which the dietary department is separated can be roughly defined as a generality, but the kitchen must by all means be designed to meet the requirements of the institution which it is to serve. Divisions which the committee would arbitrarily set for a hospital of 150 to 200 beds are as follows:

1. Main Kitchen, 36 x 40 ft.
2. Diet Kitchen, 23 x 27 ft. with dietitian's office adjoining, 10 x 12.
3. Dishwashing Room, 20 x 25 ft.
4. Ice Storage and Ice Cream Room, 12 x 12 ft.
5. Large cold storage space in connection with general storeroom, but utilized mainly for foods for the dietary department, which can be requisitioned as needed, 25 x 20 ft.

6. Three cold storage rooms opening into anteroom in direct connection with the kitchen, each 8 x 10 ft., with convenient shelves and hooks.
 1. For fruits and vegetables,
 1. For dairy products and eggs,
 1. For meats.
7. One small cold storage space about 2 x 4 ft. for sea foods.
8. One bread and pastry room about 10 x 15 ft.
9. Convenient elevators for transportation of food.
10. One diet kitchen, 12 x 18 ft. for each unit (20 to 35 patients).
11. One pupil nurses' dining room with serving room.
12. Three dining rooms for the various divisions of the staff (with serving room).
13. One dining room for patients' friends.
14. One dining room for male employees, with common serving room.
15. One dining room for female employees, with common serving room.
16. One milk room.

The committee has made no attempt to suggest grouping of these rooms, or arrangement in the rooms of the various devices which this report will bring to your attention. Those details must be determined separately for each hospital. The committee has, however, secured a number of floor plans of dietary departments in hospitals recently constructed. These plans may be seen at the committee's booth on the exhibition floor.

Labor saving devices permit the hospital to economize, both as to payroll and as to amount of foodstuffs used. It is the opinion of the committee that the following should be found in every hospital kitchen:

An electrically driven machine or machines which will chop meat and vegetables, and which may be used as a bread crumber.

A butter cutting device which makes it possible to use bulk tub butter rather than the more expensive print butter.

An electrically driven meat slicer.

An electrically driven bread slicer, with efficient safety devices.

An electrically driven vegetable parer. This device will not pare potatoes so that they are ready for cooking. They must be gone over by hand and the eyes removed. There is some saving of time, however, and a very marked saving of potato because when the work is done entirely by hand the parings are very

much thicker, with a resultant waste which includes that portion of the vegetable immediately beneath the skin which is said to be richer in vitamins and other health giving substances.

Fireless cookers used overnight in the preparation of cooked cereals are economical and efficient.

It is advisable that as much cooking equipment as possible be heated by steam. In the large institution the amount of steam employed for these purposes is comparatively trivial when we consider that the power plant must be operated both day and night in order to provide electricity to pump water, and to heat the buildings. Both copper and aluminum steam heated equipment have been found satisfactory. One objection to copper cooking utensils is that the inside must frequently be retinned if in constant use. With aluminum there is no such disadvantage. Copper utensils if well cared for (which, however, entails considerable work) probably present a more desirable appearance than aluminum. If the outside of the utensil, however, is not frequently polished, copper soon becomes tarnished and unsightly. Meat, vegetables, soups and cereals may be cooked in steam jacketed containers with ease and efficiency. A recent innovation is a low temperature vapor cooker which is heated by means of steam but which does not employ live steam as a cooking agent. Steam has a temperature of 100° Centigrade when not under pressure, and more if there is pressure. This new device cooks at a temperature of less than 100° Centigrade, and while it requires a longer time for cooking, the amount of steam used is comparatively small and the results, in the experience of the chairman of this committee, who has tested out one of these cookers, are something of an improvement over the ordinary steam cooker for certain articles. There is certainly less shrinkage in meats. The meats are thoroughly cooked and retain more of the original juice than is the case with ordinary boiled meats. The flavor is at least as good as that of boiled meats. This new method would appear to merit consideration and further trial.

Coal gas is perhaps the most desirable fuel for use in preparing food which must be baked or roasted, or cooked on top of the stove.

A few years ago we seemed to hear more of the use of electricity for cooking than we now do. The committee attempted to secure a working exhibit of an all electric kitchen for this convention, but found it impossible for this year, although two firms have promised to combine next year and provide such a kitchen, which is certain to be of interest to our members. The use of electricity has been complained of as being both slower and more

expensive than gas. Improvements in manufacture will no doubt increase the speed of cooking, and the cost of electric power in the institution under consideration will no doubt determine whether the use of electricity is practical.

An appliance which has come into quite general use within the past few years is the electrical bake oven for breads and pastries. The chairman has not seen one of these ovens installed in a hospital, but believes that it will find a practical use there.

In localities where natural gas is plentiful it has been found admirable for kitchen use.

At one of our previous meetings we heard of a hospital which utilized petroleum oil as a cooking agent in the kitchen. It was found quite satisfactory in this case, and it was used, of course, because it was both plentiful and cheap in that locality.

The gas, or other type of stove, should be of ample size. It should be properly located from the point of view of unnecessary steps and should have as few projecting surfaces, shelves, et cetera, as possible, so as to simplify the matter of cleanliness.

The stoves, as well as all the heated equipment, should be grouped under one or more hoods, which are connected with powerful ventilating fans for the purpose of carrying away heat and odors. One of our committee has found that wire-bound glass hoods with nickel trimmings are especially desirable from the point of view of appearance and cleanliness, and have the added advantage of permitting the sunlight to come through, preventing the darkening of the room, which often results with large, all metal hoods.

Electric, gas or steam coffee machines should be installed in a battery. There should be at least two urns, in case of difficulty with one, and in most hospitals it is desirable to have three or more urns for coffee and one or more for tea, cocoa, et cetera. In the majority of cases steam will be found most suitable for heating these urns.

The handling of milk, cream, and ice cream in a hospital is a matter which requires earnest attention. The hospital executive who permits the use of old-fashioned milk-can and dipper for milk to be used for drinking purposes is probably making a grave error. Moreover, he is at fault if he does not periodically check the purity of the milk supply by means of bacteria counts made in the hospital laboratory. One of us has found that bacteria counts provided by health department or other agencies upon the milk of various dairies are accurate counts of the bacteria content of the milk at the time the counts are taken. They give very little idea, however, of the condition of the milk when it actually reaches the hospital. Moreover, milk which may

reach the hospital in a reasonably pure condition may be contaminated to the point of being a menace if it is not properly handled after it reaches the hospital. It is impossible for the committee to recommend any one method of caring for milk. Some hospitals may wish to purchase certified milk entirely for drinking. Others may prefer the pure, raw milk and pasteurize it themselves, still others may purchase milk already pasteurized for general use. The committee, then, can only recommend that the dietitian and the superintendent of the hospital know and assure themselves of the purity of the milk when received by the hospital, and that they take every precaution to see that it is not further contaminated or neglected after it is received. Two of our committee have had excellent results in the use of proper types of refrigerated milk urns. It is important that these urns be so constructed as to be very easily scalded and steamed daily. It seems desirable that they be constructed on the order of thermos bottles, together with a compartment for ice or a refrigeration coil. This principle will assure cold milk and economy of the refrigerant. Where whole milk is used, as it should be for drinking purposes, an urn which delivers the proper percentage of cream for each glass of milk seems entirely desirable.

The electric mixing machine is indispensable in the modern institutional kitchen. It can perform so many services for the cook that she, perhaps, considers it her greatest boon.

There can be no doubt that the modern type of dishwasher is a vast improvement over hand washing. For hospital use, in the opinion of the committee, the automatic dishwasher which does not sterilize the dishes fails to perform a function which is most important. It is very true that all of us separately sterilize dishes used by persons whom we know to be afflicted with communicable disease. Is there a superintendent present, however, in whose hospital it has not occurred that a patient has been treated for a few days or even a week for some supposed non-contagious disease only to find at the expiration of that time that he has been suffering all the time from typhoid or diphtheria, or smallpox, or scarlet fever, or pulmonary tuberculosis? That in itself is sufficient argument in favor of the sterilizing as well as the washing of every dish used in the institution.

Food conveyors are of many types. By some the steam table is preferred with containers sent up on the elevator and placed in the steam table on the ward. Still others use the food cart, heated by hot water or by electricity, or the newer type of food cart constructed on the principle of the fireless cooker or the vacuum thermos bottle. The conveyor heated with hot water has been criticized because of inefficiency and because of

its greater weight which requires more current for the elevators. The electrically heated device has been said to overheat the food at times and to give it a warmed-over taste. The third type of food cart has been in use for a shorter period. Either for that reason or because it is superior, we have heard fewer criticisms of this type. It is surely true that it consumes no fuel, that it does not have the disadvantage of great weight, and it cannot overheat the food because the latter is kept at exactly the temperature at which it is put in.

The dietitian's kitchen, if conveniently located, need not duplicate all the equipment found in the main kitchen, although a certain amount of duplication is inevitable. The diet kitchen, as well as the main kitchen, should be conveniently located to the service elevators or dumb waiters which communicate with the various nursing units. If the food cart system is to be used these elevators should be so planned as to accommodate one or more of them.

Convenient to both kitchens we should place the cold storage rooms. These rooms should be well refrigerated, should be of ample size, but not so large as to be wasteful of the refrigerant, should contain convenient shelves, hooks or tables, and should be so constructed inside as to make absolute cleanliness easy.

The diet kitchen proper should contain such general cooking equipment as is necessary, but should be particularly designed for the scientific preparation of special diet orders.

In order that the hospital diet kitchen may be most efficient it is first of all important that there be a thorough understanding of dietetics on the part of the physician. It can scarcely be said of any of our staffs that 100 per cent of the men are capable of scientifically coöperating with the dietitian in this regard. Also, there must be a mental equipment on the part of the dietitian and her assistants that permits not only the care of dietetic orders as written, but a knowledge of dietetics so broad that she can discuss with the physician or patient, or both, the best methods of obtaining the desired result. A hospital is not prepared to render an efficient food service unless its dietetic department can, and does, teach dietetics to physician and patient, as well as pupil nurses. The physical equipment of the kitchen must permit of the satisfactory preparation of both general and special diets economically, and there must be a transportation system that gets the food, warm and palatable, to the patient. There must be a plan of coöperation between the physician, dietitian, nurse and patient so that orders given are accurately carried out and recorded.

In the preparation of special diets, and especially of diets for diabetic, nephritic, hypertension, gout and obesity patients, it is well to have a section of the general kitchen set aside for this work. The special equipment needed is not great in amount. A good gram scale for weighing foods is a necessity. Washed bran is necessary in the various bread substitutes for diabetic patients, and can be provided both quickly and satisfactorily by the use of an electric mixing machine in combination with running water. Either the mixing machine in the general kitchen or a baby mixer in the diet kitchen will provide this service. The need of sugar-free cream and milk for diabetic patients necessitates the preparation of these foods by the kitchen. A standard cream separator is a great time saver here.

One member of the committee has devised an ingenious, practical plan of securing coöperation between the various individuals and departments concerned in food service and in checking the carrying out of orders. The details of this system may be secured at the booth of the committee on the exhibition floor.

The personnel of the dietary department is the most important consideration. The committee has not attempted to recommend any particular organization other than to insist that the chief dietitian control the entire food problem of the institution, and that she be not restricted merely to the preparation of special diets. Assistant dietitians should be provided if needed. The presence of pupil nurses and pupil dietitians in the department has a very desirable effect upon the standard of work, and stimulates the superior officers to set the best possible example. Efficiency of employees is all important. If we attempt to accomplish our dietary performance, so to speak, by main strength, that is, by mere numbers of employees indifferently trained, we will have chaos. Salaries should be as generous as possible and the department should be so managed that there is not the constant change in personnel so often seen.

The committee recommends a detailed accurate accounting system for the dietary as well as other departments. The dietitian must be able to analyze cost figures if she is intelligently to eliminate carelessness and waste. Some of us have found that a yearly budget for the dietary department has had a desirable effect and has in no way curtailed the work of the department. One of our number has found it helpful to compute the percentage of waste of various articles of food in her hospital, thus determining what foods in general are most acceptable to patient and staff, and what in general the size of servings should be.

In the report which I have just read it has not been possible to dwell upon many of the details which are so important in plan-

ning and operating a food department. The committee has, however, prepared certain material which will be distributed from its booth. We have about 300 copies of a suggested list of dietary equipment for a hospital of 150 beds. We have worked up this list by means of inventories of existing departments and have added such additional equipment as seemed desirable. While this list cannot be expected to fit any particular case, we believe that it will be of value to the hospital which is building or re-equipping its dietary department.

CHAIRMAN GRAVES: My correspondence leads me to believe that the more progressive hospitals are demanding more well-trained, competent dietitians than our colleges are furnishing of this type of woman. There is no question but what we do need more well-trained dietitians in the field, and we will not have them until colleges recognize that there is something to be done nowadays besides training teachers, and change their curriculum to that effect. I am going a step further and say that I do not know whether this will be done in colleges until we have someone interested in this work and in the training of dietitians who know something about hospital conditions. It is not going to be possible to train dietitians for the most efficient work in hospitals so long as they are trained by somebody who knows nothing about a hospital, and it is going to mean not only coöperation with the hospital, but between the hospital and the colleges for this training. It certainly is the duty of the hospital with a well developed dietary department and with something to offer in the way of training, to train student dietitians. Unfortunately, we have a few hospitals that are offering this training to student dietitians simply as an effective way of getting work done, perhaps, without much expense on their part, and not offering very much training to the young woman who wants to become a dietitian. There are these outstanding features that must be overcome before we are going to get the kind of dietary departments in our hospitals which we all of us who are interested in this work hope to see. It is coming along rather rapidly, yet we have only a start, and it is going to require considerable attention and effort on the part of all of us interested in this work before we bring about the type of thing we want.

The meeting then adjourned.

AMERICAN HOSPITAL ASSOCIATION GENERAL SESSION

September 26, 1922, 8:30 p. m. President O'Hanlon in the Chair

PRESIDENT O'HANLON: The meeting will please come to order. It is a very great pleasure to introduce to you this evening Dr. George David Stewart, President of the New York Academy of Medicine, New York City, who will speak to us on standardization values.

PRESIDENT O'HANLON: I am very sure I express the opinion of every one present tonight when I say we are under very great obligations to Dr. Stewart for the inspiring message that he has brought to us.

MR. JOHN A. LAPP, Managing Editor, The Nation's Health, Chicago: Mr. Chairman, Ladies and Gentlemen: I think that there is one subject upon which I would favor standardization; it is in the matter of court decisions, and especially in the matter of court decisions relating to the liability of hospitals.

THE LIABILITY OF THE HOSPITAL

By John A. Lapp, Director, Department
of Social Action, N. C. W. C., Chicago

The term liability has an ominous sound. It brings up visions of disaster, financial ruin and bankruptcy. Liability is so terrorizing that men seek protection against its disasters. Liability insurance is now common against most of the risks which people run in this respect. Employers' liability, automobile owners' liability and liability against damage to others in many ways have now made liability and liability insurance well known to all men.

In this discussion of the liability of the hospital we are discussing a subject which has not received the attention it deserves. Hospitals have been more or less immune from liability in the past. Hospital managers are therefore startled when from time to time a court decision fixes definite responsibility upon the hospital for damages which may have been caused to patients or others in the conduct of a hospital.

This was strikingly shown by a recent decision in Ohio which held a hospital responsible and liable for damages to a patient caused by the incompetence of a nurse in its employ. Hospitals particularly in Ohio became much alarmed at the prospect of liability which it opened. Efforts were made to get the supreme court of that state to grant a re-hearing and to reverse its decision. The supreme court, however, stood upon its decision and the same now stands as the final word of the courts of the state of Ohio.

Before going further to the discussion of this case, it would be well to classify hospitals in order that there may be no confusion about the type of hospital which we are discussing. From the standpoint of this discussion, hospitals are classified as: (1) public, including municipal, state and federal hospitals; (2) private, charitable or benevolent institutions, not for profit; and (3) private institutions conducted for profit. It is the second of these groups which is to be discussed in this paper, namely the private, charitable or benevolent hospitals, not for profit. In passing it may be said that public hospitals are in almost all states exempt from liability for damages under the decisions of the courts in this country. The only recourse which is a doubtful one, is to sue personally the superintendent or other officer.

In the case of private hospitals operated for profit, the courts have held such hospitals responsible in the same manner that they would hold any other corporation for profit responsible. Such hospitals being private institutions conducted for profit do not fall within the exemptions of either the public hospitals or the charitable or benevolent hospitals.

RULINGS OF STATES DIFFER

We come then to the discussion of the liability of charitable or benevolent hospitals. Since these hospitals have been conducted as a public service without any possibility of profit to any one, they have been treated generally by the courts in a different and more lenient manner than private corporations conducted for profit would be treated. There is, however, a great diversity of conclusions concerning the liability of such hospitals. This variety extends all the way from almost complete exemption on the one hand, to a rather strict interpretation of liability on the other.

For instance, in the state of Massachusetts, in a case decided in February, 1920 (*Roosen vs. Hospital*, 126 N. E. 392), the extreme view of exemption from liability was held. The court went so far as to state that "a public charitable hospital

is not liable for the negligence of its managers in selecting incompetent subordinate agents, any more than it is for the negligence of subordinate agents selected with care." Thus the court decided no liability could attach to the act of any subordinate, whether that person were competent and selected with care or whether he were incompetent and selected in the full knowledge of his incompetency by the hospital. Decisions in some other states have upheld in whole or in part a similar finding, notably in Tennessee, South Carolina, Michigan and Illinois. The opposite view was expressed by the Ohio court in the recent decision in the case of Taylor vs. Flower Deaconess Home and Hospital, decided January 24, 1922.

In this case the court said: "We are convinced that sound reasons sustain the court to the effect that a public charity should not be held liable for the negligence of a servant in whose selection the hospital and managers have exercised due care. On the other hand such an institution is liable when it fails to exercise such care." This decision follows similar decisions in New York, Texas, Washington, Rhode Island, New Hampshire, Minnesota and Alabama. The New York case mentioned (*Goodman vs. Orphan Asylum* 165, N. Y. Supp. 149) declared: "The general principle protecting charitable institutions for actions for negligence does not include negligence that results in the choice of incompetent, unskilled or careless servants."

MUST CHOOSE SUBORDINATES CAREFULLY

The decisions bring the point down to this,—that practically all states exempt hospitals from liability for damages caused by subordinates, if those subordinates are chosen with due care. A few states make such exemption, even for damages caused by subordinates selected without due care, but the weight of present opinion seems to be that the hospital will be held liable for damages unless it selects its servants with due care.

The protection which has been accorded to charitable hospitals has been, as previously stated, because of the public service which they render. A second reason of equal importance has been that since the funds of the hospital were given in trust for a charitable purpose they could not be diverted to pay judgments and they would be diverted even though the judgment might be paid from earned income from pay patients. Another reason for exemption has been that patients accepting the charity of the hospital were thereby held to waive any rights for damages which might be caused to them. Some courts have overruled these latter contentions and have held that such an

exemption would work against the very interests which the donors had in making bequests to the hospital. In one case it was said that "While the public has an interest in the maintenance of a great public charity it also has an interest in seeing that every person and corporation which undertakes the performance of a duty performs it carefully."

A similar holding is the ruling case in England, where it was said that "By the admission of the patient to enjoy in the hospital the gratuitous benefit of its care a hospital undertakes that the patient while there shall be treated only by experts, whether physicians, surgeons or nurses of whose professional competence the governors have taken reasonable care to assure themselves." This point of view is stated very forcefully in a North Carolina case (*Hoke vs. Glenn*, 167 N. C. 594) in which it was said: "The beneficiaries of charitable institutions are the poor, who have very little opportunity for selection, and it is the purpose of the founders to give to them skillful and humane treatment. If they are permitted to employ those who are incompetent and unskilled, funds bestowed for beneficence are diverted from their true purpose, and under the form of a charity they become a menace to those for whose benefit they are established." And in the Ohio case heretofore quoted it was declared that exemptions from liability "should be surrounded by such safeguards as will prevent the neglect of a duty which the hospital can and should perform. It cannot watch or control the countless acts and movements of its servants, but it can and should exercise care to see that only careful and competent servants minister to stricken patients who are within its walls. Moreover, while it may well be said that donors of funds for the praiseworthy objects of charitable hospitals do not contemplate the diversion of the fund for the payment of damages for the numerous acts of servants referred to, yet they necessarily realize and appreciate that they give their donations to those who have the management and control of the institution, and that every principle of justice requires that they use care in the development and maintenance of the property and in the selection of servants who have the oversight of patients. In our day there is a general tendency in all persons to resort to hospitals in cases which require surgical operations, or in cases of severe sickness, and for obvious reasons it is desirable that such an institution should neither be held out as devoted solely to the poor nor to the rich, and the degree of care required should in all cases be the same. The same rule should apply to a pay patient as to one who does not pay, and there is general agreement in this proposition."

Does the foregoing place upon the hospital an unduly heavy burden? Does the requirement that the hospital shall exercise due care in the selection of competent assistants create a dangerous liability? That does not appear to me to be the case. It places merely a reasonable requirement upon the hospital that it shall exercise due care in the selection of superintendents, surgeons, nurses and attendants. It does not ask of them that they do the impossible. A servant may be hired who is incompetent and unless the hospital managers in the exercise of due care knew or should have known that the person was incompetent, the hospital would not be liable. Thus, for example, a man might be hired as an ambulance driver who had epileptic seizures; the hospital necessarily would not be liable unless it knew that fact. It would be liable if it retained such a man in its employ as an ambulance driver after the facts became known.

A hospital might reasonably employ a physician by virtue of his license from the state to practice medicine without running a risk of liability, but if it should be discovered that such physician were incompetent or negligent, the hospital would be liable thereafter if it retained such man in its employ. How far this rule would apply to physicians who serve upon the staff of a hospital without being in the employ of the hospital, I am not prepared at this time to say. The hospital could not be held liable if a physician is negligent in treating his own patient who is brought into the hospital, which is acting in the capacity of a hotel for the sick. It is not so clear, if the physician is on the staff of the hospital and treats a patient brought to the hospital, not as a private patient, but as a patient of the hospital.

It seems clear that the hospital would be responsible for acts of its superintendent or subordinate agent for grossly incompetent care if it were evident that the board of managers knew of the incompetence of such superintendent or subordinate agent. Of course unreasonable requirements cannot be enforced upon a hospital. Neither a hospital nor a physician is liable for a failure to give the best that the world affords. They are required to give the best, at least that the facilities and medical knowledge of the immediate community afford. A hospital in a small town remote from great medical centers would therefore not be held responsible for as many things, as would one located in a metropolitan center. If the hospital does the best it can with the lights and facilities it has, the rule of reason is satisfied. Hospitals and physicians should not be held responsible for acts or omissions when in the exercise of their judgment they did what they considered the best for the patient. Failure to perform an operation, though a post mortem should

disclose that an operation would have saved the life of the patient, could not and of course should not create liability. Lack of supreme knowledge or mistakes in medical judgment cannot create liability.

In concluding this paper, which has necessarily been of general application, rather than of specific cases and types of liability, it seems fitting to suggest the relationship between certain proposed legislation and the liability of charitable hospitals.

It is perfectly clear that the liability of the hospital is increasing. It is perfectly clear also that such liability will continue to increase. If the hospital is to be held liable for negligence in the performance of its duties, especially because of its failure to select competent physicians, surgeons, nurses and attendants, then it would be wholly wrong and clearly unconstitutional for a legislature to attempt to compel a hospital to open its staff to all physicians entitled to practice medicine in any given community, as was proposed by bills introduced in various state legislatures during the past two years.

If the legislature can compel a hospital to put chiropractors on its staff, then the hospital could not be held liable justly for damages. The converse of this is also true, that if a hospital is held liable for negligent and incompetent agents, no other power but its own managers can have anything to say concerning the selection of those who are to perform the work of the hospital.

What should the hospital do about its legal liability? In the first place it should not get alarmed. The liability of a properly run hospital is very slight. Liability to damages may force upon trustees and managers greater attention to the trust which has been imposed upon them, but if their duties are properly performed there is slight cause for fear. On the other hand a hospital which is not properly run, a hospital which has a reputation for slovenly work and insanitary conditions may well look to its liability.

Should the charitable hospital insure against liability? Yes, but not at exorbitant rates. Clearly the liability is slight in the average well managed hospital. Rates of insurance should therefore be extremely low.

May I suggest that insurance against liability may be provided best by a hospital mutual insurance company operating at cost by the hospitals themselves, thus following the example of numerous lines of business where such a plan is in successful operation?

The meeting then adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fourth Annual Conference, Atlantic City, New Jersey,
September 27, 1922, 9:00 A. M. Chairman, President
George D. O'Hanlon, Superintendent, Bellevue
and Allied Hospitals, New York

SECTION ON TRUSTEES

PRESIDENT O'HANLON: The meeting will please come to order. As President of the American Hospital Association, I assure you it gives me very great pleasure to welcome the Trustees' Section into the body of this Association. Perhaps some of you were at West Baden last year when the Trustees' Section was created. Why it was not created before last year is more than I can tell, for it seems to me it should have been one of the very first sections and have had its origin with the birth of the Association twenty-four years ago. I do not remember just how many were present at the creation of this section last year, but it was a very small number. We are all gratified at the increasing number this year and I am sure when the word goes out that there is a real Trustees' Section, accomplishing something, that it will be very well attended; in fact, one of the most popular sections of the Association. I have asked Mr. Arthur A. Fleisher, Chairman of the Board of Trustees of the Jewish Hospital, Philadelphia, to act as chairman at this first meeting, and Mr. Henry C. Wright, member of the Board of Trustees of Bellevue and Allied Hospitals, New York, as secretary. It is my pleasure to turn the meeting over to Mr. Fleisher.

Mr. Arthur A. Fleisher takes the chair.

CHAIRMAN FLEISHER: We should thank Dr. O'Hanlon for being present and opening this meeting for us. I know that he has many duties to perform and it certainly is a privilege to feel he has been with us. As this is the first meeting, numbers ought not to discourage us, but rather encourage us. We are not a very large group, perhaps not as large as we might wish, but in talking this morning to one of the founders of this Association he mentioned the fact that when they started twenty-three years ago at their first meeting they had twelve present, and the following year a few more, and the following year still more, until the Association has grown to the size that it is today; so this Section need not be discouraged by the numbers present, but encouraged.

by the fact that we have a larger attendance present than when the Association was originally organized.

While laymen and trustees of hospitals have always been interested in the work of the American Hospital Association since its organization in 1899, still this is the first time there has been a separate section devoted to the problems of the trustees. This present session marks an epoch and a great stride forward in the efforts of the American Hospital Association. In view of the fact that this is the first meeting of the Trustees' Section and that the problems confronting all boards are very similar, it was thought best to abandon the plan of a program of assigned topics and adopt one where each and every one present would have the opportunity to bring before the meeting such problems as were uppermost in his mind and perhaps difficult to solve. This interchange of ideas and the discussion of successful plans used elsewhere can be most helpful. If each one here present will freely give of his ideas and experience, this conference will prove one of the most valuable and inspiring of the various sessions of the annual conference of the Association.

Several topics as suggested subjects for discussion have been handed to me, and if there is no objection it might be well to discuss these first, to be followed by any others that may be presented. Mr. Secretary, I think we will first perhaps discuss these questions which have been presented and then take any others that may be brought up later.

SECRETARY WRIGHT: The topics handed in thus far are the following:

"1. What kind of reports should a superintendent make to his Board of Trustees?"

"2. The kind of publicity a hospital should undertake to enlighten the community as to its work?"

"3. The organization of a Board of Trustees?" I assume that this question is intended to indicate the different forms in which the Board might organize to transact its affairs.

"4. How should the public be appealed to for funds?"

"5. What constitutes hospital policy?" I assume this question is an attempt to secure a definition of the scope of what the trustees should do, assuming that they care for matters of policy, and what the superintendent should do.

"6. Should hospitals under private management receive state funds?" That will be a pretty vital question to those in some states.

"7. Should endowments and bequests given to hospitals or other charities be taxed?"

CHAIRMAN FLEISHER: Perhaps it would be well to take

these in the order in which they have been read by Mr. Wright, and the first one is, "What kind of reports should a superintendent make to his board of trustees?"

MR. FRED KREBS, President of the Board of Managers, Conemaugh Valley Memorial Hospital, Johnstown, Pa.: Up until the present time the average hospital probably has not had so close a coöperation between the superintendent and the Board of Trustees and the general conventions which we now hold. In my opinion the superintendent should submit at the monthly meeting a complete report of the financial transactions showing the cost per patient, expenses and receipts of the different departments, and finally he should make a complete report calling the attention of the Board of Trustees to the needs of the hospital; pointing out defects and making such suggestions to the board as will enable the board to act intelligently, and the report should give to the public an intelligent knowledge of the needs and of the activities of the hospital during the preceding month.

SECRETARY WRIGHT: I think probably that the one proposing this subject had in mind various ramifications of this. That is, assuming that the Board of Trustees has various committees—which almost all boards of trustees do have—each assigned to a particular subject or topic with which they are supposed to deal, should such a committee make its report of its findings to the board, or should it be dealing in its actions day by day and week by week with the superintendent and then should the superintendent make all reports? In other words, the kind of a report which the superintendent is going to make to the trustees will depend very largely upon what the trustees consider their function, and what the function of the superintendent is supposed to be. If the superintendent is supposed to have delegated to him all executive power and responsibility and the trustees reserve to themselves all policy matters, then the superintendent will report on all matters. In other words, there will be nothing for anybody else to report. If part of the work is actually carried on by committees and to them is delegated certain power, then they would have certain reports to make. I think it was those phases of the matter which the proposer of this question had in mind.

MR. W. W. RAWSON, Superintendent, Thomas D. Dee Memorial Hospital, Ogden, Utah: It seems to me that the proper thing would be for that committee to confer with the superintendent before any report was made to the board. Then the superintendent could incorporate their report in his report to the Board of Trustees. The superintendent is in closer communication with all departments of the hospital than is the

Board of Directors and it seems to me as if all of those reports should come through him and should be on file in his office to be referred to at any time.

MR. DANIEL D. TEST, Superintendent, Pennsylvania Hospital, Philadelphia, Pa.: I approve of the remarks of the gentleman who has just spoken, but I shall have to take issue with the remarks of our worthy secretary if I have understood them. It seems to me a very great mistake to have a line of demarcation drawn between the duties of the managers and the duties of the superintendent. What we want is coöperation. Managers and superintendents should feel that they are working together. Where there are special committees appointed those committees must work with the superintendent and get such information as he may have if they are to judge wisely on the questions before them, and I believe it makes for coöperation for the report to be made by the superintendent. The superintendent should present the report with the authority of the committee and the members of the committee can back it up. Such an arrangement makes for that close coöperation and team work which is essential to an efficient organization and which is all too little the practice today. I presume that Mr. Wright and I do not differ greatly, but if his remarks impressed others as they did me I think it would be unfortunate for them to go unchallenged.

SECRETARY WRIGHT: I would like to clear up that impression in this regard. In examining conditions in various hospitals that have gotten out of joint for one reason or another, I found there are usually two main reasons for local difficulty. One may be the incompetence of a superintendent and the other, which is more often found, the interference with the superintendent by the Board of Trustees. I mean by interference, interference in details. We all aim to do the right thing by the hospital, all have the same motive, both the trustees and the superintendent, but zones of duty need to be defined. Take a ball team; each and every one of the nine has the motive to win the game but unless there is some one directing head that assigns each player to a particular place to do a particular job the game does not get on, regardless of the good motive. There should be the assignment of a particular zone of action and function, so that there is nothing left uncertain as to whose job a particular piece of work is.

DR. SAMUEL PIERSON, Stamford Hospital, Stamford, Conn.: It seems to me the whole thing lies in coöperation. If a superintendent is good for anything, the suggestions as to the conduct of the hospital should primarily come from the superintendent.

They should go from there to the executive committee of the Board—who should meet four times a month—and they should recommend or pass upon finally the suggestions that are approved. The trustees are a body who meet probably only once a month and they should be called upon to take care of the larger items, such as new building, and questions of policy, but with the coöperation of the executive committee of the Board which will endorse all proper recommendations of the superintendent.

MR. RICHARD P. BORDEN, Trustee, Union Hospital, Fall River, Mass.: The trustees are usually interested only in the major policies of the hospital. I always thought a hospital was built for one primary purpose and that was for the restoration of the health of the people in its community, and I notice that in the suggestion that has been made as to the reports which should go to the Board of Trustees there will be no mention made of the achievements of the hospital with regard to the care of the people within its doors. Infact, the suggestion has been made that the trustees should meet monthly to consider the financial condition and the policies for the future development of the hospital. Why should not the trustees have reports which make them familiar with the actually important work of the hospital, which is not the expenditure of money but restoration of health and alleviation of suffering? It seems to me that if you are going to get a body of trustees that are really interested in the hospital work, they should be informed, carefully informed, by proper reports of what is being accomplished on the medical side of the hospital. They should know from reports rendered from the superintendent whether the staff and the nurses are doing their work properly and carefully. They should, of course, know the means for development of the hospital, they should keep aware of the financial side of the proposition. They should know that discipline is being carefully preserved, and all those things should be accomplished through the direct medium of the superintendent.

To my mind there should be no strained relations between the superintendent and the Board of Trustees. The superintendent is but a personification of the trustees as far as development of the hospital is concerned. Fortunately all of us are born with only one mouth. If we had several and all speaking different thoughts at the same time, just think what discord there would be and how little intelligence would be communicated to the hearer. The superintendent is the mouthpiece of the Board of Trustees and his voice is the only one that should be heard through the various departments of the hospital. If

he cannot speak properly, then get somebody else; but no committee, and no single member of the Board of Trustees, should act as intermediary between the superintendent and the Board in relation to the general conduct of the hospital. Of course, there may be special committees appointed from time to time, such as committees in charge of new buildings or things which are not in the usual conduct of the hospital, which may very well be delegated to a committee, acting always, however, in consultation and with the advice of the superintendent. But in the general work of the hospital committees may assist the superintendent by investigating and reporting. It makes very little difference whether the report is made directly by the committee to the Board of Trustees or through the superintendent. It may facilitate the matter if the report is made through the superintendent. But no committee is going to be able to carefully and properly investigate the questions which arise in hospital matters unless the committee be thoroughly aware of the knowledge which the superintendent has with reference to the question, and without carefully considering his advice before the report is made. Then when the report is made it becomes for the trustees to determine what action shall be taken upon the report and then it becomes the duty and privilege and right of the superintendent to see that that action is carried out to the best interests of the hospital.

MR. FRANK E. BROOKE, Superintendent Harrisburg Hospital, Harrisburg, Pa.: I hold the proxies of my Board of Trustees, so I will speak as representing them. We have a system of committees in our Board. It has been found that Board meetings lasted until eleven and twelve o'clock at night when all of the questions had to be threshed out by that Board, and the plan was adopted of having a finance committee, a medical committee, a supply committee and a property committee—all of whom hold meetings during the week preceding the monthly meeting of the Board of Trustees. The superintendent sits in at these meetings, and every one of these committees holds a meeting every month. The superintendent presents the business to these committee meetings—bringing to the medical committee the medical suggestions and such explanations as they require and professional problems which have arisen during the month, likewise financial or property reports to the finance and to the property and supplies committee respectively—and each committee is required to thresh out all the details of their problems and present a written report at the meeting of the board of managers during the following week. The superintendent sits in the monthly meeting of the board of managers and hears his

ideas expressed by the chairman of these various committees. He does not have to say a word, because his thoughts were told the week before.

MR. E. S. GILMORE, Superintendent Wesley Memorial Hospital, Chicago, Ill.: We have our Board of Trustees of course, with an executive committee, advisory committee, finance committee and publicity committee. The executive committee is the real Board of Trustees of the hospital. That meets every month. The executive committee employs and dismisses the superintendent. They go on the plan that having hired a man to do the work they should let him do it, instead of doing it themselves. The superintendent meets with the executive committee every month and makes his report as regards finances, the auditing, the medical work and everything else that would be of interest to the trustees. If he has in mind any big thing he takes it to the trustees for their advice; otherwise, should he fail, they would likely censure him. They would not put in as superintendent of the hospital a man whom they could not depend on to act as head of the hospital. Through his reports they learn what is going on. Also they have friends in the hospital constantly from whom they learn what is going on. You also have kickers who want to write to the president of the Board and tell him something that is going on in the hospital.

If the work is done through the superintendent and he is authorized to say to anybody in the hospital that this must or must not be done, it puts a morale into the hospital, so that he can run it and run it as he thinks it ought to be run. If he does not run the hospital as it ought to be run, then it is up to the Board of Trustees to relieve him and put in somebody that will; but as long as he is doing it well, the less meddling that he can have the better it will be for him and the better it will be for the hospital.

MRS. R. B. RAYNER, President Wilmington Homeopathic Hospital, Wilmington, Del.: May I ask how the personnel of your executive committee is made up?

MR. GILMORE: Ours is a Methodist hospital and we have a society of about two hundred Methodists who meet once a year and elect the trustees, so that the trustees cannot reelect themselves if they choose. This society can put in a new Board or a third of a new Board at any time they wish as the trustees are elected for only three years. A committee is appointed to nominate the trustees and the nominations come before the full society for vote. Anybody is authorized to add to the nominations if he wishes. The trustees are elected and the executive

committee members are elected. The trustees meet and elect the president.

DR. T. C. ZULICK, Easton Hospital, Easton, Pa.: The question in my mind is what the superintendent should report to his Board of Trustees. That question should be answered by—does the Board of Trustees function? and if it does function, what are the limits of its function? Comparisons may be odious but when we take up corporations all over the country and look at the way they are managed, the reports they have filed—take for comparison, the management of a national bank by the board of directors. The government to protect the depositors of the country under a banking law has decided that in the past directors of national banks did not function. It was left entirely to the cashier and the president to run the bank. They met and did as they were told and that was the end of it—but that day is past. A director of a bank must function the same as anywhere else or be eliminated from the board of directors. The Board of Trustees of a hospital should function along the same lines as the bank board of directors. The superintendent is supposed to be the executive or representative of the Board of Trustees of the hospital and attend to the administration of the hospital.

Our institution is controlled by a Board of Trustees composed of ladies entirely. We have an advisory board composed of representative men—officials of large business houses—who are called in for consultation on expansion or the expenditure of money. The by-laws specify the duties of our superintendent. We have a finance committee, a household committee, a wardrobe committee and a property committee. The board of trustees meet once a month, the executive committee occasionally once a week, sometimes every two weeks, and at every monthly meeting the superintendent meets with the Board of Trustees and gives a report of the exact condition of the hospital, not only the financial condition, but reports the number of patients in the house, the number admitted during the month, the number discharged and the deaths, the number of charity cases—in fact gives them a picture of the running of the institution from month to month. She consults the finance committee any time for advice. She does the same thing with the hospital committee about supplies, the property committee she generally consults on the expenditure of money or anything in their line. If it is a frame building and needs paint, or if she wants an addition built she consults the chairman of the property committee. The superintendent reports these matters to the Board of Trustees every month. She

also reports the condition and action of the staff meetings and whether the staff is holding meetings. She always attends these staff meetings, hears their discussion and reports approximately what transpires at these meetings. As I said in the first place and still feel, no matter where the hospital is, the Board should function. This has not been done in the past in many institutions, especially in our state. The Board met and heard the report of the superintendent or his representative and adjourned. The whole management is left in the hands of the superintendent. What we want today is co-operation not only with the Board of Trustees and the superintendent, but with everybody in the institution.

MR. W. A. CHILDRESS, Hermann Hospital, Houston, Texas: I am a layman in this movement and am here to seek information. As a trustee I would like to know, is it just the superintendent that the trustees are to meet with or do they meet with the nurses and doctors and the rest of the staff in the hospital as well or do you just take the hospital and turn it over to the superintendent? Our funds were left by Mr. George Hermann, an honored citizen of my town, for a charity hospital; the trustees are elected for life, self perpetuating, and we are all very much interested in the proposition. We are all plain business men and know very little about running a hospital. Our idea is to run the hospital just like we run any other business proposition in a businesslike manner. Personally I feel the trustees ought to hear from the nurses and doctors, in fact all down the line. I think that every one connected with the hospital is just a certain spoke in a wheel and that unless they all work together the wheel will not turn around. This is the first meeting of trustees I have attended of this Association, and I want to hear some discussion or reference to the function of the nurses and doctors and the superintendent. How are the trustees going to know what is going on in the hospital unless they come in contact with the nurses and the different ones connected with it? I agree with the gentlemen who just spoke that the superintendent should be given full responsibility but it seems to me Mr. Superintendent ought to be checked up just as well as anybody else. In fact I think that the trustees ought to be checked up also, to see whether they are running the hospital successfully—we all need checking up. I would like to know whether the trustees should have a meeting also with the nurses and others to learn just what is going on all down the line. We should know if all are working in harmony. I do not believe in building a hospital, and saying, "Here Mr. Superintendent, here's your hos-

pital, go run it, and give me a report every month." I cannot reconcile myself to that policy. It is just like contemplating building a hospital and the architect will say "How much money have you? Turn it over to me and I will build you a hospital." Well, the Board of Trustees I am connected with feel that we should have something to say about the expenditure of money as well as operating the hospital. We are very fortunate in one respect, that we have no financial campaigns to make, the money is all secured and it is up to us to expend it judiciously. We want to get one hundred cents on the dollar for everything we spend. The question I would like answered so as to have the information to take back home with me is whether the trustees are to meet with the other members of the hospital staff outside of the superintendent and how often?

DR. ZULICK: Very frequently members of our Board will drop in to hear the discussions of the staff at the monthly meeting. An invitation is extended if they care to attend.

REV. CHARLES HENRY WEBB, Superintendent, St. John's Hospital (Church Charity Foundation), Brooklyn, New York: I think I can offer a suggestion which possibly will be of benefit to the speaker who has just spoken. Our trustees have a committee on the nurses' training school and a visiting committee. The committee on the nurses' training school make themselves familiar with the conduct of the school and all its problems; they meet the supervisor, and report to the trustees about conditions in the school, how the nurses are being trained, etc. If any important condition existed in the school that the nurses' training school committee of the Board of Trustees didn't know about it would be their own fault. At each meeting of the Board of Trustees a visiting committee of two is appointed to visit the hospital during the following month and go over it, ask questions, familiarize themselves with everything going on and report to the Board of Trustees their own impressions. In that way the superintendent is checked up and the nursing situation is checked up and the trustees get exactly the information I think you are inquiring about.

MR. WILLIAM B. ROSSKAM, Jewish Hospital Association, Philadelphia, Pa.: The Jewish Hospital controls their institution through an executive committee. They meet twice a month with the administrator. I do not like the word "superintendent." I do not think that is a right name. It is beneath the dignity of the man, for he occupies the position really as representative of the Board to run the institution and he should be called administrator and not superintendent. Our admin-

istrator meets with us twice a month and gives our executive committee data on what has occurred through the month. We have committees like training school committees, and other committees of that type, whose duty it is to visit the hospital and see that the functions of the hospital are properly performed. But the whole question in my mind is that each hospital has a problem of its own. It depends upon the personnel or the men governing the institution. I do not believe that any set plan can be laid down which will govern every institution, but that each will find it has its own problem and will have to solve that problem as it exists.

DR. FREDERICK GWYER, Lincoln Hospital, New York City: I am not a trustee, but a superintendent. I have been very much interested in listening to the trustees who have spoken and I thought you might be interested in hearing a little of the superintendent's side. Our hospital is managed by a board of twenty-four women. It is the only hospital in New York of large size that has a board of managers of women exclusively. Then we also have an advisory board of men, prominent representative men. The officers of the institution and the chairmen of all committees constituted the executive committee. This executive committee reports to the board of managers once a month; they hold meetings twice a month. The superintendent makes his report to the executive committee. He makes a general report to the board of managers at their monthly meeting.

Dealing with the executive committee is a very good thing because it reaches all members of all departments of the institution. The report of the superintendent should be sufficient to cover the welfare of the patients and the welfare of the hospital. My reports cover sometimes one or two, sometimes eight or ten or even fifteen pages and they cover every department of the institution from the patient up to or down to the financial department. I believe it is the duty of the superintendent to keep the board of managers through the executive committee informed of every detail of sufficient importance to be considered. I can say that a very great harmony is to be found in our institution, there is no friction between the administrative or the superintendent's office and the board of managers because they are all in sympathy and in close touch and there are no secrets. Everything is above board and everything is reported. One other point is that heads of departments are called before the executive committee at every meeting and they make a special report, all of which is known to the superintendent.

A MEMBER: In answer to the gentleman from Texas, I wish to mention how our Board of Trustees keep in touch with our nurses and doctors. We have an advisory committee of five doctors from our staff, who meet with members of the Board of Trustees and the superintendent of the hospital once a month and make their recommendations. We also have a meeting once a month with our nurses, which we call a home night. The nurses give this program and make suggestions from their point of view, even our student nurses are permitted to give papers from their point of view, setting forth what they consider would be a betterment to the hospital. They also have a question box and are permitted to ask questions or offer suggestions. The questions and suggestions are read and discussed before the board of directors and also the superintendent of the hospital. In this way they find out just what the feeling and desires of every nurse in the hospital are, even to the student nurses.

SECRETARY WRIGHT: A change was made in the procedure of the meeting of the Bellevue and Allied Hospitals' trustees which might be of some suggestion or value to you. It had been the custom to have a typewritten calendar of every item that is to be taken up for consideration during the Board meeting. This calendar was preceded by the report of the superintendent; then each of the items one by one were taken up for discussion. The meeting usually ran two hours, sometimes longer. That procedure has been changed to this form.

There is a calendar made out as formerly. It is sent by the secretary of the Board to the members of the Board two days preceding the meeting, so that the members have ample time to look over this calendar and see all matters to be brought before this Board. On this calendar as now formulated, after each number or item, is the recommendation of the general medical superintendent. When the calendar is taken up the procedure of the chairman is as follows: "Does any member of the Board make reservations on any numbers on the calendar?" One member will say "I would like to discuss five and ten," another member, "I would like to discuss seven and thirteen," and those numbers are simply noted. "Any other reservations?" "No other reservations." Someone then makes a motion that we approve the action or the recommendation of the general medical superintendent as contained on the calendar for the day, except for the reservations noted. The discussion then is limited to the items reserved by different members. Of course any trustee can bring up a new matter—they are not restricted in that. This procedure is working very

satisfactorily. I do not believe the meetings we now have are much more than one-fourth of what they used to be and I know of no dissatisfaction with that procedure. Every man there has the right to say what he wishes to say on any particular number on the calendar; but he must know what numbers he wishes to discuss.

MRS. F. H. TORRINGTON, Women's College Hospital, Toronto, Ont., Canada: In any instance has a doctor or member of the medical staff a place on the Board of Trustees? Our hospital is managed by women and I should be glad to learn what is usual in this regard and how the Board of Trustees and the staff are brought into perfect harmony and understanding, so that all may work toward one end.

MR. DANIEL T. TEST: A discussion of the question just raised would keep us here until tonight if we were to go into it fully. There has been a great divergence of opinion on this subject and a good deal has been written about it. The most valuable contributions have been made by doctors themselves. I think I can furnish the lady with some very interesting literature on the subject and I am wondering whether it would not be more satisfactory to her and others to have this literature and go over it at their leisure than for us to take the time to discuss such an important and complicated question here. Mr. Chairman, as it is necessary for me to leave the meeting, I am going to ask you to permit me to step aside from the subject for a moment so that I may sound a note of encouragement.

As I see it, it is the duty of everyone here today to do everything possible during the year to get hospital trustees interested in these meetings and also to get them to realize that they cannot function as efficiently as they should, unless they get in touch from time to time with other trustees. It is no reflection on any trustee to say that he needs to be educated. Every superintendent, no matter how experienced, needs the education which comes from exchanging views with other superintendents. We are just beginning to learn how to run our hospitals, and if we would keep abreast with the demands of the times we must put ourselves in the way of learning by the experiences not only of ourselves but of others. I quite agree with the gentleman to my left that each hospital has individual problems of its own. At the same time experience has taught us that there are certain fundamental things underlying hospital management just as in the management of other forms of business and we are learning year by year more of these fundamental things—things that are absolutely necessary to the efficient management of any hospital, and these funda-

mental principles must be generally adopted if we are to have smooth running and efficient organizations. One serious trouble has been that we have not realized that running a hospital is a real business and the most complicated business there is. The output of the hospital, which is health, cannot be figured in dollars and cents and we have charged our inefficient management to sweet charity. By reason of the fact that the hospital business is the most complicated business on earth, there is all the more need of relieving the complications wherever possible by proper organization and management. If the hospital has a training school for nurses, it is conducting a boarding school; if it has a private patient pavilion, it is running a hotel; and the many other departments add greatly to its complications. We are also dealing with people who are ill and as a result are abnormal and have a right to be cranky. The friends, as a result of their anxiety, are also abnormal and have a right to be cranky; and (I hope there are not many doctors present) a good many of our doctors are abnormal when it comes to administrative affairs, and this adds more to the complications. We must face our problem from these various angles, and while this discussion is most helpful, we are not going to settle anything today and it can only be settled gradually as we get together year after year and recognize the fundamentals which underlie a successful hospital organization and adopt some definite standards which can be used by hospitals generally. While I am actively engaged as a hospital executive, I have also been a trustee of two institutions for several years and I believe that I can sympathetically view both sides of this question. I find myself continually wanting to advocate and to do things as a trustee, which as an executive I know are not right. May I say to the gentleman from Texas that one of the most important things in hospital management is discipline. In a business where the employes come on duty at eight in the morning and leave at five in the evening discipline may be an easy matter; but where one is responsible for the employes for twenty-four hours of the day and where there are so many different groups and different standards and viewpoints, it is a much more serious matter. It is much easier to control employes while at work than when they are off duty. Unless the fundamental principles of discipline are carried out, the man or woman does not exist who can maintain proper discipline in an institution. It is absolutely subversive to discipline for any manager to go about from person to person and ask questions which may affect a superior officer, and listen to gossip and complaints. I am not doubt-

ing the manager's right to do these things, but if he is interested in the welfare of his institution he will not do them. I am not surprised, however, that the gentleman has raised the question, for doubtless a great many hold the same views which he has expressed. The fact remains, however, that discipline is a highly specialized thing, and managers and others who have not made a special study of discipline will do wisely to leave disciplinary measures to those who are especially trained.

CHAIRMAN FLEISHER: Thank you very much, Mr. Test.

DR. ZULICK: For the benefit of the lady who previously spoke, I would report the existence of the same problem to the women managing our hospital. As a Board of Trustees they come in contact with the medical staff through the medical director and the medical board. The trustees appoint the medical board, which consists of the chief of each department on each service and the medical director is the chairman of that board.

CHAIRMAN FLEISHER: We will proceed to the next topic, "The kind of publicity a hospital should undertake to enlighten the public as to its work." How do you approach the public for funds? Most of the hospitals have to appeal to the public for funds.

DR. ZULICK: In Pennsylvania and a great many other states where they have compensation laws, you are allowed so much for compensation and after thirty days nothing for your services. It cannot be charged against charity, so you must raise money to take care of these cases. When this condition started we went to the industries that sent their employees to the institution and induced them to pay the full cost of maintenance for all employees. Others pay so much a year to endow a bed and if they have anyone they want to send, we charge it up against the amount they set aside, whatever it be, \$500 or \$700 or \$1,000, and if they send enough patients in to exceed the amount we send them the bill and they pay the difference. Last year we started the "Community Chest" and all organizations were compelled to submit a budget. It has worked out very well so far this year and we expect to continue that next year. Of course, the state allows us a certain amount of appropriation for the charity cases.

SECRETARY WRIGHT: I think the idea the proposer of this topic had in mind was not simply the financial question but rather how the hospital and the work it is doing and its relation to the community, and the function it is performing, can be laid before the public. We know quite readily the kind of

things the newspaper likes to play up in regard to hospitals. Where a patient jumps out of the window or something bad of one character or another happens in the hospital we get plenty of publicity; but the ordinary ward work from day to day is not interesting to a paper unless somebody knows how to make it interesting. The question is whether anybody, who has had experience, can make the common conduct of the hospital from day to day interesting, make it news that the public will really be interested in. If this can be done the general interest and sympathy of the public will be promoted and enlisted all the time, so that when we want to bring on a financial campaign all we need to do is to let the people know our need for money. I think that is one of the ideas the proposer of the question had in mind.

MR. GILMORE: Why try to conduct a campaign for the raising of funds? The most sensible thing to do is to put it into the hands of a firm which makes that its business and it will be done right. The publicity that will bring you business from day to day, the very best kind of publicity to get, is that which arises from the conduct of the hospital in the care of the patients. If you so treat your patients that they will go out and tell their friends of the good treatment they got, you get a publicity that is worth everything to you. Treat your patients so that they won't go out and say "I hope I never have to go to that hospital again," otherwise you are then going to get another kind of publicity, the kind you don't want. The thing to do is to treat your patients well, not only medically, but in every other way, so that when they leave they will feel it is good to have been there.

MR. BROOKE, Harrisburg: My idea is to tell the public what you are doing. When I went to Harrisburg we called a meeting of the representatives of the three papers to meet the new superintendent. They came down, each editor with his reporters. It developed then that they had not been getting hold of news, that they were sore about it and that they reported the deaths in the hospital, but did not report any of the facts that we wanted put out. We got them to feeling that that was all going to be changed, that they could have real news, could have good stories, if I could ask them, for personal reasons, not to use the names of the persons involved,—and they never played false with me. Within the last month there was one of my interested trustees up in Maine on a summer vacation and he wrote back a letter to the editor of one of the papers wanting to know if there was any trouble about getting news out of the hospital. Fortunately, something came

in that did show up the hospital in a pretty good light three or four days later. I have found that that sort of spirit can be developed. When I was elected superintendent of the Harrisburg Hospital the newspapers ran a story of a column and a half; at the same time, an acquaintance of mine was elected president of a large hospital in New York City and he got four lines. It was under different conditions.

Yesterday I got a telegram from the editors of two of the papers at Harrisburg, "Send us so many words in connection with the American Hospital Association Conference." You can get that sort of spirit by going at it in that way. Let them know you want their help, put it up to them that this is their hospital as much as yours, give them all the facts and have an understanding with them that they do not use harmful stories, and they will take good care of you.

MR. FRED KREBS: Our experience has been somewhat similar to the experience at Harrisburg. We have three daily papers of Johnstown co-operating in a friendly spirit with the superintendent of the hospital, who furnishes them with every item of news that is of interest to the public and they also at our request refrain from publishing anything that might be detrimental to the hospital. They, of course, publish friendly criticisms but they do not publish anything in a spirit of unfriendliness and as a result our hospital is constantly kept in the mind of the public.

DR. HYDE, Blue Mountain: When it comes to advertising I feel very much interested. Some time ago reporters came to our hospital and wanted to write the institution up, and I told them if they would come at a certain time we would be glad to give them something in the way of news. When they came out I told them I had a committee of patients, who represented all the patients, and that I would turn the reporters over to this committee of the patients and let them tell them about the hospital. As a result they went around the institution, took pictures of the various departments,—occupational therapy department and the light treatment room. From different views of the patients they got a thoroughly patient's idea of the hospital. They wrote the thing up in the Sunday paper and gave us all the publicity that was possible and were very well satisfied because they felt as if they had got right into the institution. I knew the committee in charge of the welfare of the patients pretty well at the time and felt perfectly safe in turning the reporters over to them. I think that is the way to advertise. The patients' committee gave them a much better idea and more

news than I would have dared to have given them and they published it under the committee's name.

CHAIRMAN FLEISHER: The next question is "How should the public be appealed to for funds?" Now here's a real live topic for argument.

MR. BORDEN: I think the problem of raising funds is a very local problem. There are so very many different conditions involved that it is difficult to establish any principle. Of course there are fundamental principles,—the use of the community chest, the use of a professional firm of money raisers, the raising of funds by the individual effort of the institution; but the basis for the appeal for funds is the availability of a community to donate the funds. All these questions vary tremendously with the hospital and the location in which it is found.

CHAIRMAN FLEISHER: We will proceed to the next topic, "What constitutes hospital policy?"

SECRETARY WRIGHT: Personally I feel very strongly the advisability and necessity of defining the job of the superintendent. Let him know what his job is and expect him to do it. If he does not do the job the trustees can look for another man. In other words, if the trustees are to have their duties and the superintendent his, then it means that the trustees must define the respective duties. In the first place they must determine what the policies are and then hold themselves to those policies. In the second place, they must determine the kind of thing it is necessary for the superintendent to report upon, in order that they may know whether or not he really is doing the right kind of a job.

If the trustees adopt a general line of organization, they must know what a policy is, as distinguished from some procedure delegated to the superintendent to carry out. What is a policy? Is employing a superintendent in charge of operating rooms a policy? According to the definitions under which some trustees operate, that is a policy. In other words, they say "We are going to supervise and advise and approve or disapprove the appointing of all employes, at any rate, employes of an upper grade." Other trustees would say, "We put the superintendent in here to do the job. We want him to appoint anybody he chooses in order to carry out that job; if he wants a superintendent of nurses, it is up to him to select her. We care nothing about appointments on the staff." The policy is in the choosing of the trustee. To my mind this question asks what is the division line between a policy and a procedure which is delegated. I hark back to a remark I made in the be-

ginning of the meeting. One of the most prolific sources of difficulty in a hospital is that trustees will go too far down the line with so-called policies, or until it comes to the point of interference. That is one thing. Another thing, trustees in making visits of inspection about the hospital will proceed to give orders or directions to employes, subordinates of the superintendent. Those are two of the most prolific sources of difficulty in a hospital so far as difficulty arising between the trustees and the superintendent is concerned.

CHAIRMAN FLEISHER: We will proceed to the next topic, "Should hospitals under private management receive state funds?"

MR. CLARENCE E. FORD, Superintendent, Division of Medical Charities, Albany, N. Y.: In regard to supervision over hospitals and the method by which funds are paid out in the State of New York the feeling was, after investigation of the policy previous to 1895 of making some payments directly from state funds, that it was advisable to change the policy to that of local aid under the general supervision of the State Board of Charities. By this policy hospitals are not restricted as to amount, it being provided by law that the rate paid shall be based on an agreement between the locality and the hospital situated in that locality. I think that Mr. Wright, who is familiar with the situation in New York State, will agree with me that on the whole the scheme has worked well, that there have been generally sufficient hospital facilities, that appropriation of funds from the state treasury has not been needed and thus the state funds were saved for other purposes. Under this plan the hospitals have been able to run and have been run quite as efficiently without getting direct appropriations from state funds as they did in the days when they were from time to time seeking such appropriations.

CHAIRMAN FLEISHER: Won't somebody speak from Pennsylvania, because they have something different there.

MR. FRED KREBS: Our hospital is located in the center of the steel and coal industry. Two-fifths of our expenditures are for free patients. The state appropriates a certain amount every two years, which does not by any means cover the amount expended for these charity patients. Mr. Baldy in his address yesterday,—a very able address it was—outlines a new policy of the state, that is, basing compensation of the institutions upon the actual amount of charity work done and of course that is entirely satisfactory to every well regulated hospital. In the past there is no doubt that the policy pursued in Pennsylvania has led to some inconvenience; but in the main our ex-

perience in Johnstown has been very satisfactory. Our average cost per patient through the year has been very low, about \$3.30, but the compensation received from the state by no means pays the full amount. We have a deficit of from \$10,000 to \$15,000 every year, which is made up by direct appeal to the public, so that I think the policy outlined by Dr. Baldy concerning state appropriations to these institutions is a good one. If the state did not aid the hospitals by direct state appropriation, the county authorities would be obliged to take care of these charity patients. In the final analysis the money would come out of the pockets of the taxpayers.

MR. FORD: I would like to add just one word. I ought to have said that the per capita rate obtained from the town or county or city by hospitals is generally higher than they would obtain or probably even expect from the state. In many of the cities and towns of New York State the rate now approximates the cost of maintenance of the patients who are admitted through the public officials of that particular locality. This is not true of New York City because the city has so many unoccupied beds in its municipal hospitals that it is not endeavoring to pay the cost of maintenance for cases in private hospitals; but many other localities do attempt to establish adequate rates of payment, a degree of coöperation which is gratifying to the hospitals located in those sections.

DR. ZULICK: I would like to ask the gentleman from Johnstown who has a deficit of \$15,000 what he attributes that deficit to, if his maintenance per capita is \$3.50 and the state pays him in proportion to the number of patients?

MR. FRED KREBS: The state has not been doing that. That is a new policy to be inaugurated by Dr. Baldy. The state has heretofore simply appropriated a definite amount and the amount was often contingent upon influence. To keep the cost of maintenance down as low as possible they were charging some people, like corporations and charity cases, the actual cost per diem for maintenance.

DR. ZULICK: We do that in this way, we charge every patient that comes in the actual cost of maintenance.

MR. FRED KREBS: We cannot do that in our district because there are many self-respecting, worthy workingmen with large families, able to pay something, but not able to pay the full cost of the hospital maintenance. We take from them what we can get; that is what we call part pay patients.

DR. ZULICK: We have the same condition. If a man cannot pay the full cost, we put him down as charity. If he wants to show appreciation of what is done for him and he hands us

\$5 we put that down under the head of subscription that goes into the general fund. But we are not allowing any corporation or any one to get away with a \$3 per diem charge if it is costing us \$4. I think that has been a fault throughout the state in many cases, but it has not been our policy for six years and we have not had a deficit for that period.

MR. BROOKE, Harrisburg: I represent a charitable institution and I believe that the hospital should be a charitable institution and I have two or three times said to the members of my finance committee that I did not want them to get into their heads that they are not to raise money every year. I believe it does them good and I believe that the people who build hospitals, who contribute to build hospitals, expect that hospital to continue to be a help to the sick poor. I do not think I would be carrying out the policies of the people who build the hospitals, I do not think I would be true to my trust if I were trying to make my hospital run without a deficit. I may be wrong and it may be an unpopular thing to say before trustees, but that is my view of it.

MR. S. A. STEPHAN, Protestant Hospital, Columbus, Ohio: We have in Ohio what is known as the Industrial Commission, which takes care of all corporations in the State of Ohio, requiring them to carry certain insurance against injuries of their workmen; but when it comes to the railroad companies which are inter-state transportation companies, the Industrial Commission does not have anything to do with them. The railroad companies have been privileged to place their patients in our hospital in the wards where they pay less than the maintenance cost for such patients. I would like it if you would take the time to inform me what ought to be done in these cases. Should the railroad companies be required to pay the same rate the Industrial Commission requires, or should we set up an arbitrary rate for them?

DR. ZULICK: I think there is only one thing to do, which is to have every one who is able, pay. This is especially true of a corporation. Think of a railroad sending a patient into a hospital and asking that institution—which is really a charitable institution—to accept less than the cost of maintenance, and asking the local community to subscribe charity for the care of railroad employees. I do not see why you should not render a bill for the actual cost. Our corporations tell us they do not want charity, that they will pay us our actual cost, and I know of no reason why they should not. Why should the Board of Trustees be compelled to ask the local citizens to subscribe

money for the care of employes of railroads who are paying their officers exorbitant salaries but ask you to work for nothing?

MR. FRED KREBS: I would say that the condition in Johnstown is somewhat peculiar in this respect. Our largest industry, the Cambria Steel Company, employing eighteen thousand men, was the first company to establish an industrial hospital. Their cases do not come to our hospital. We do get patients from the outlying coal district and coal mines and they pay us their regular state compensation; but we have a great number of patients from small firms or individual employers at times that we are obliged to take care of as charity patients, and the state contributes a part of the cost.

DR. GWYER: May I ask the gentleman one question. If he has had no deficit the last six years, does that mean his expenses have been paid from his hospital earnings, or from his hospital earnings plus the endowment?

DR. ZULICK: That statement means that we have had no deficit, that we have paid all our debts up to the first day of June, which is the end of our fiscal year; that includes income from the board of patients, the amount received from our endowment fund of \$130,000, and public subscriptions from the community chest. We feel we have to get it from the public, but try to get it first from those who can pay.

MISS AINAH ROYCE, Miami City Hospital, Miami, Fla.: I would like to inquire, if the cost of a patient is \$4.19 and the ward rate is \$3.00, if you should charge such people as a railroad company or the compensation people the full cost of maintenance, \$4.19? Also, if you should have a patient who wished to pay all possible and not be a real charity patient, who could only afford \$3.00, would you consider the deficit charity?

CHAIRMAN FLEISHER: Won't somebody answer that?

DR. ZULICK: Don't you think that that would come under the head of part pay compensation and not charity?

MISS ROYCE: But is that bad debt, or charity? Would you feel justified in taking that out of the fund given you by the city for charity work?

MR. BORDEN: There is a good deal of complication about the cost of a patient per day. As a matter of fact, the actual cost of every patient you bring into the ward is not the cost of a patient per day. If it costs \$4.19 per day to take care of a patient, according to population of your hospital at a given time, it does not mean it would cost you \$4.19 additional a day when you bring an additional patient into the ward. As a matter of fact it costs you very much less than that, for when the population increases in a certain ratio up to an efficient working

capacity of your hospital, the more people you get into your hospital the less it costs per day, so that actually, if you come down to study the matter, although the cost of running your hospital may be \$4.19, the actual additional outlay for a patient in your ward means what you pay for food and whatever additional nursing care, if any, is required, for the other items will not equal the amount which you pay on your average per capita per diem cost. Now is that charity or is it not charity? In the first place I do not regard a general hospital as a charitable institution, any more than I regard a schoolhouse or a fire department as a charitable institution. If it is a community enterprise, it should be available for all parts of the community and those that are able to pay should within reasonable amounts help to pay and carry the expense of that institution, which is just as desirable for them in an emergency as it is for anybody else. Now we do not all pay equally for fire protection and the fire department. In cities the people who own the larger properties pay higher taxes in order to get the same protection the poor person gets from the same fire department. Within limits the same thing is true in the hospital. Put a person in a private room and charge as much as you ought for a private room—he is paying more, but getting very little more accommodation from the hospital excepting insofar as his privacy is concerned. A hospital is primarily a legitimate development of community enterprise, but I do not think we need concern ourselves particularly as to whether we are giving a man charity when he does not pay the full per capita per diem cost; the only question to my mind is getting the money necessary for the institution, spending it for the utmost benefit of the patients, and making no profit—except the tremendous profit which comes from the satisfaction of having a well run institution which has done worthy work for the people of the community.

CHAIRMAN FLEISHER: The next topic is, "Should endowments and bequests given to hospitals or other charities be taxed?"

MR. BORDEN: There is a very interesting story about that question. I happened to be in Washington in 1918 when the Federal Income Tax Law was passed and in the office where I was we used to get the reports as soon as they came from the Congressional Committees. In the first report of the estate tax there was no provision exempting charitable bequests from taxation, so thinking there might be some mistake I wrote a letter to the Chairman of the Committee from which this report was issued, calling his attention to it and saying that there must be some omission in not exempting charitable institu-

tions. He wrote back and said that as long as they were taxing estate money away from mothers and children of the people who were dying he did not see why any exception should be made for charitable institutions, and the provision for exemption of charitable institutions was intentionally omitted from that bill although it had been mentioned in all previous bills and in general state bills.

The principal reason why I bring this to the attention of the trustees is this: As soon as that letter was received from the Chairman of the Committee I wrote to Mr. Wright, who was then secretary of the American Hospital Association, and through Mr. Wright, the hospitals whose superintendents were members of the American Hospital Association—we had at that time no institution members—were asked to send letters and to see their representatives in Congress urging them to see to it that this bill was eliminated. Now if you will observe the people gathered in this room you will see that all over the United States there are hospitals which can act as representatives in that way, and the machinery of the American Hospital Association properly put in motion could accomplish a good deal. I do not mean to say that it was through the efforts of the American Hospital Association alone that this provision for the exemption of charitable bequests was restored to the bill, but I do say that the American Hospital Association had a great deal to do with the amendment of the bill.

The question was, "Should there be a tax on charitable bequests?" The argument used at that time was that anything which would not exempt the charitable endowment from large estates to hospitals in the country would not be a saving, that the money which was obtained by taxation in that way would not be revenue to the country as a whole, because the work the hospitals were doing was relieving the general public of a great burden which would have to be met by taxation, if the charitably inclined did not carry it on.

A great many people in making their wills want to make provision first for their families and very often that is done by giving specific amounts and then leaving a residuary clause saying that the residue portion shall be divided among certain institutions and providing that the specific bequests should be free from taxation, which threw all the burden of taxation upon the residuary clause; in other words, families of the testators were not going to be taxed under the estate law, and in the way the bill was written the charitable institutions would pay all the taxes and get nothing and in the larger estates it is

astonishing the amount which the tax on residuary clauses would amount to under such a ruling.

I wish to point out to your trustees that there is a big advantage in having an organization like the American Hospital Association which can take up these questions and see that they are properly answered as they arrive. This institution was started by superintendents of hospitals with small revenues. For years they have maintained it and the results have been of great benefit to the trustees, who claim to be the fathers and mothers of hospitals in the country. The suggestions and criticisms which have developed hospitals are largely due to superintendents and not to trustees. The trustees should now seek the opportunity of backing the work which the American Hospital Association has undertaken, by becoming members of the Association and providing the funds which are absolutely necessary to make an efficient organization. You cannot carry on a progressive work in an institution or association like this unless you have funds to pay proper expenditures.

Yesterday a resolution was offered to the effect that a standing committee should be appointed to report on the financial administration of hospitals. It is absolutely useless to appoint that committee at this time, because the American Hospital Association has not the funds to see that that committee can pay their way properly. There is no question of the value of such reports to the trustees—the people who are responsible for the financial management of the hospitals; but unless the trustees, acting through their institutions, pay the cost for the information they get the information cannot be furnished to them. I hope, as has been suggested earlier in this meeting, that you as business people, having in trust the business administration of hospitals, shall wherever you come in contact with people in similar positions, and you being affiliated with this Association, that you will tell them that it is their duty and it is their privilege as business administrators to become a member and also to have their hospitals become an institutional member of the American Hospital Association.

CHAIRMAN FLEISHER: Mr. Borden has given us the history pertaining to the United States income tax law; perhaps some of you can give us facts regarding state laws. The Protestant Hospital Association at their meeting passed a very definite resolution. I believe it would be well if this organization went on record as opposing such taxation, because the state legislatures and the federal government should know that directors and trustees of charitable organizations are endeavoring to protect the institutions, while such legislation hinders progress.

MR. FRED. KREBS: I offer the following resolution:

"Resolved, That the diversion of portions of legacies to hospitals, homes and other charitable or religious organizations for state purposes, through the means of a collateral inheritance tax or in any other manner, is such a harmful and detrimental procedure that the Trustees' Section of the American Hospital Association desires to place itself upon record as being opposed to any such method of taxation."

(The resolution was unanimously adopted.)

CHAIRMAN FLEISHER: A memorandum has been handed me asking the following question, "Why not consider the advisability of appointing a committee for one year, to study and report on the relation of the trustees and the superintendent to each other and the hospital?" If I might venture an opinion, I believe that as the Trustees' Section is just starting it would be well to lay that question on the table for another year until we would be properly organized and the Association then would be in position to appoint a committee—or this Section would be in position to appoint a committee—to study such topics relating to hospital work as might be desired. If there is no other suggestion made, we will lay this matter on the table for the present.

CHAIRMAN FLEISHER: We all should congratulate ourselves on the success of this meeting, considering it is the first meeting of this kind. I wish to thank those who have contributed to the discussion of the meeting and feel that all of us have benefited by the many suggestions and thoughts offered here today. I trust that the Trustees' Section of the American Hospital Association will become an active part of the Annual Conference of the Association. We will now adjourn.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fourth Annual Conference, Atlantic City, N. J., September 27, 1922, 9:00 A. M.

SECTION ON NURSING

Miss Laura R. Logan in the Chair

CHAIRMAN LOGAN: This is the Nursing Section of the American Hospital Association. It was thought in arranging this program that it would be interesting to have some discussion of the report of the Rockefeller Committee for the study of nursing education, which has so recently come out and which will inevitably affect the nursing departments of hospitals when its measures are carried into effect in the advancement of nursing education, just as, after the Carnegie Foundation made a study of medical education, teaching hospitals arranged their work so that medical students might continue their education in accordance with the plan of medical education laid down by that study. So it will probably come to pass that hospitals will have to make such changes and rearrangements as are necessary to coöperate with the advancement of nursing education.

For the benefit of those who may not know it—this study of the Rockefeller Foundation was begun in 1918. It began with the study of public health nursing education. No sooner had the Committee started its work than they discovered that the study of public health nursing education necessarily carried back into the professional training of the nurse in the hospital school of nursing, and so the committee was enlarged and an exhaustive study made of a number of schools of nursing and of the actual work of the student nurse in the hospital wards.

A DISCUSSION OF THE REPORT OF THE ROCKEFELLER COMMITTEE AND ITS EFFECT IN PRACTICE UPON THE HOSPITAL NURSING DEPARTMENT

Amy M. Hilliard, R. N., Superintendent, Samaritan Hospital, Troy, N. Y.

It is a great pleasure to have the opportunity to discuss the report which has been so ably presented by Miss Goldmark.

We are grateful, indeed, for the investigation made by the

committee and have looked forward eagerly to the presentation of its conclusions.

Many of us are very much heartened to be assured that we have not been on the wrong track these last ten years, and that the conclusions reached by this impartial high tribunal are the same as those reached by the most farseeing of our own profession of nursing. The report will give much encouragement and strong backing to the efforts of the nursing profession, coming as it does from a wholly unprejudiced source like the Rockefeller Foundation, which has won so enviable a reputation for reaching sound conclusions.

In presenting the object of the investigation it is most interesting to note that the committee found very early the need of considering the whole problem of nurse education before it could reach any conclusions concerning the "proper training of the public health nurse." This is far from coinciding with the opinion of some of our Chicago friends who have acted on the premise that if nurses were scarce, we should create large numbers of them through the simple expedient of the short course—the shorter the better. Where are all the hundreds and thousands of these so-called "public health nurses," the product of widely advertised short courses? The communities do not seem to be clamoring for them when seeking public health nursing service. Is it not amazing that a public health officer should proclaim from the housetops a scheme that was bound to have a damaging effect on the hospitals of his community?

Many who have followed after the various panaceas for the inadequate registration of students to meet the demands of the rapidly increasing number of hospitals and hospital beds have failed to recognize the damaging effect of much of this newspaper publicity on the minds of the prospective students themselves. Miss Ruth Morgan stressed this point when presenting the obstacles to recruiting students for schools of nursing, before the Eastern Council of Nursing Education. It passes understanding that any member of a hospital board, administrative or medical, should support a scheme which through its very publicity would deflect students from their schools of nursing. Is it not rather remarkable that so many of our young women see through such sham courses, and even though many of them are far from independent financially, that they are willing to spend from two to three years in a school of nursing, when the headlines of the daily press of their city proclaim the assurances of the public health officer that they may become public health nurses in from five to six weeks?

The American Hospital Association can render very great

service to the hospitals of this country if it will make concerted effort through all its sections to prevent, as far as possible, publicity that is damaging and prejudicial to nursing, in the minds of the young women of the country.

The hospital administrator, and more particularly the principal of the school of nursing, in the past may not have given thought to the special problems which confront nurses in public health work outside the hospital, and in consequence the nurse as a student may not have received adequate preparation to meet such problems. Nevertheless, with all the supposed inadequacies of training, she has met these problems so successfully that she is the official public health worker in practically every community of our country. The communities that have no public health nurse want her and are demanding her services.

A considerable number of schools of nursing are giving students, during training, a preparatory course in public health nursing. Such courses are in no way supposed to do more than outline the many activities to do with community health and to point the way to further preparation for public service. We agree with the principal of one of our best known schools of nursing who, when we were being taken to task for our shortcomings in failing to prepare nurses for public health work, said that "public health nurses—such as they are—are as we, in schools of nursing, have made them, and when we look about and see the product of our efforts we are not wholly discouraged with our work." Do we not, then, all subscribe to the first conclusion of the committee, "that all agencies should require as a prerequisite for employment of the public health nurse, the basic hospital training, followed by a post-graduate course, including both class and field work in public health nursing?"

Statistics show that enormously increasing numbers of young women are entering colleges and other schools with special courses preparatory for the activities of educated women. Why should we, as hospital administrators, allow all of these young women to prepare for teachers, secretaries, dietitians, nutritional workers, occupational therapists, etc.? Should we sit quietly by and accept the fact that they are not in large numbers preparing for nursing, or shall we not make an effort to convert the trustees of colleges in our vicinities to the advantage of including nursing in the college curriculum?

It is entirely for boards of trustees to determine whether they desire to attract to their schools of nursing the educated and cultivated young women who are entering other professional schools and colleges, or if they are to be satisfied with the immature grammar-school girl. It is a significant fact that the schools

of nursing which demand the highest educational qualifications, pay no allowance, and give students a well rounded course of instruction, are the schools that not only have full classes, but have waiting lists. Why not take this cue and follow it to its logical conclusion? I maintain that this is a question for boards of trustees to determine, and upon their decision will depend the kind of nursing service that will be given patients in their hospitals, and the usefulness of the graduates of their schools in the communities they serve.

Is there any reason why a dietitian or occupational worker should be required to have as a prerequisite a full high school course, and content ourselves with one year of high school or less as an adequate preparation for the matriculate of a school of nursing? Is it not good publicity for our schools of nursing to have the hospitals used as laboratories for the colleges, in the same sense that the college laboratories are used for other courses? No hospital administrator seriously prefers to see schools of nursing made up of immature and uneducated young women. Is it not, then, quite time that we consider the student nurse preëminently as a student preparing for an exacting professional career? Should we not press home to our boards of trustees the fact that these students should have the educational background and be given opportunities at least equal to those in colleges, none of which are preparing students for more exacting careers? Very often the personnel of the hospital board is almost identical with that of the college board in the same community, and the matter ought to be readily understood and affiliation easily made. Have we not made sufficient progress to disabuse our minds of the old consideration of the student nurse as a financial asset necessary to the hospital in order to minimize it? Student nurses have paid off more hospital deficits than all the boards of trustees in the country, and without student nurses it would be quite impossible for hospitals to run without very material increase in charges or corresponding increase in deficits. I ask you in all honesty—is this quite fair? As an administrator of a small hospital, where most things progressive in nurse education—and, for that matter, in hospital administration—are supposed to be impossible, I beg to assure you that the obstacles disappear when one sees the light, and applies a little common sense to the problem.

Tens of thousands of young women are seeking college education. These are the women we need in the field of public health, in the teaching and administrative departments of our schools of nursing, and we must have them if we are to keep

the hospitals on the same high level of popularity with the public as they at present enjoy.

It is vitally important that schools of nursing shall be administered by graduate nurses, who have had preparation and experience "beyond the basic nursing course." This point is so obvious that it would seem unnecessary to stress it if it were not tragically true that in the majority of cases so little consideration is given to it. How often we see the consequences of appointing an inexperienced, unprepared nurse as principal or school administrator. It is heartbreaking to see the havoc that results, and the injustice done to students, to patients, to the community, and also to the nurse herself who fails. No school can be better than its head. Why not, then, give the same reasonable consideration to the selection and appointment of the principal of a school of nursing as would be given to the selection of the principal of any other professional school?

If "nursing is one of the most attractive fields now open to women of high capacity," let us see to it that in our schools of nursing we make effective appeal to such women, and, to this end, that we urge our hospital boards of trustees to present to the public the financial needs of schools of nursing, and—as in the case of all other professional schools—ask the public for funds or endowments sufficient to meet these needs. If the public health nurse is worthy of the responsibility placed upon her, and is to carry on the health conservation program the communities expect of her, should not the communities make available the funds for her education? Is it fair to place this burden entirely upon the shoulders of the hospital superintendent, in addition to his (or her) other manifold duties?

Conclusion "V" carries a heavy indictment for the average hospital school of nursing, but we must admit its truth. The public is so accustomed to the consideration of the student nurse as an obedient servant who quietly accepts every inconvenience or injustice without audible protest, that it will not be easy for them to see her in the light of a financial and educational responsibility. Given a principal who has the preparation, experience and personality for leadership, many shortcomings in our schools will disappear; but she cannot make bricks without straw. She must have direct representatives on the board of trustees, and their active interest and backing. She must be viewed in the light of an educator rather than entirely as a hospital supervisor.

The preparation of various groups of sick-room workers—other than the registered nurse—calls for licensure of all persons who care for the sick. This gives recognition to the various types of ability, to adequacy of preparation for the work to be

undertaken, and also protection to the schools of nursing. More effective community control of the highly commercial so-called registries for nurses would lessen the merciless exploitation of the public, the graduate nurse, and attendant. If a purely commercial and unethical group get together and organize a registry, the temptation is for them to send untrained women out as graduate or trained nurses, in order that the percentage of money accruing to the registry will be greater. The women find it hard to resist the temptation to accept wages they are really not prepared to earn, particularly when this is coupled with the fact that the registries will call those more willing to go, if one refuses to be accessory to the fraud. I believe that much of the criticism for high nursing charges has come from this method of exploitation of the public.

Each state should have a statute providing licensure for all persons caring for the sick for compensation. This would classify nursing services, prevent fraud, and give some encouragement to the maintenance of schools of nursing.

In several states a subsidiary group has been provided by law for the care of the sick, and when such provision has been made, we strongly endorse the utilization of such service for incipient, chronic or convalescent patients. It is rather interesting to note, however, that the very persons who most loudly proclaim the value of the so-called practical nurse or attendant as a substitute for the graduate nurse are usually unwilling to accept her services for themselves or their families. Any registrar will tell you that when a physician calls for a nurse for himself or his family he asks not only for a registered nurse, but for the best and most experienced one he can get. He surely should be unwilling to recommend less intelligent service for acutely ill patients.

One of the most progressive movements for the advancement of nurse education has been the inclusion of schools of nursing as departments in universities. The public has always been accustomed to the endowment of universities and colleges, and this ought to pave the way for the endowment of schools of nursing. Financial independence of schools of nursing is imperative if these schools are to achieve their fullest development.

In summing up the conclusions of the committee we find:

That as a preparation for public health work, "no other education is of such basic importance as nurse training."

That for all fields of community health work, from teaching positive health, to disease prevention and control, women of high capacity are indicated.

That the present standards must not only be maintained, but

the scope of our schools must be broadened so that their educational opportunities are at least on a par with those of other schools for higher education.

That we should bend our energies to obtain reasonable endowments for schools of nursing, not only to increase their educational advantages, but to relieve the hospitals of the burden of their support.

That, as no school can be better than its director, the administrators, teachers and supervisors in schools of nursing must have definite preparation and experience for their exacting work.

That, as we must look more and more to university schools in the future for the preparation of leaders and administrators in schools of nursing and in the public health fields, we must give encouragement to their development, particularly as the public is accustomed to the endowment of university education and will more readily give endowment to all schools of nursing in consequence.

That, in order to classify nursing service, prevent fraud and exploitation, we should work toward the establishment of a national standard for the licensure of all persons caring for the sick for compensation.

MISS M. H. McMILLAN, Chicago: I came here to learn and not to discuss, but I would like to add to what the paper has already said one point: I think we are very fortunate indeed in having such a wonderful endorsement (and that really is what the report is) of the many years of effort on the part of the nursing profession. Most of us have been working for practically everything that is in that report. None of our schools live up absolutely to it, but it is an encouragement to go on and do our best. The only thing in the report that I am not enthusiastic about is the recommendation that the course be twenty-eight months. With all the work we are trying to get in for our student nurses, twenty-eight months is very short. With the youth of the women whom we have to accept, the necessarily intensified course that twenty-eight months calls for is hard on both the student nurse and the institution. Intensive work is the hardest kind of work, drawing upon all one's physical, mental and nervous strength, and it would seem advisable to be a little bit slow in adopting that twenty-eight months' recommendation without very careful planning and experimentation.

I believe, with Miss Hilliard, that the heads of the nursing schools and the nursing staffs need a great deal of assistance. They have too much responsibility; it is being expected that they secure definite results but very little coöperation from those

who should help is being received. A few universities have recognized the educational problem and have been broad minded but pressure should be brought upon others to take up their share of the burden. I know of some very conservative universities which have been begged for years to open up their doors to the nursing schools as well as to the graduate nurse, and still those doors are closed. I know of one university which has been offered a certain amount of money each year for a period of years if it will allow a department for graduate and student nurses, but the offer is still held up for painstaking consideration. I know of one hospital where the board of management of the institution is anxious to give its student nurses the privilege of university affiliation, but they cannot bring enough pressure to bear on the university to secure that coöperation. It appears manifest that the heads of the nursing schools need much more help than they are getting and that the general public needs and must have some education as to actual conditions. This report will do an enormous amount of good in educating the people of the community, something that the nurses themselves have not been able to accomplish.

I would like to say, about that Chicago effort of which Miss Hilliard spoke, that it has not hurt the nurses of Chicago as much as was anticipated; the whole thing has been so grotesque that the people have rather waked up to its absurdity and harmfulness. Many of you know the story of the woman who called up one of the Chicago hospitals and said she had illness in her family and wanted a good nurse. She said, "Don't send me one of them public health nurses as I am one myself." While that course was developed for the purpose of having very cheap nurses, some of them during epidemic periods charged enormous fees, more than the graduate nurse fee, so that the desired cheapness was not secured, while some homes in Chicago had serious results from the employment of these women.

MISS ELIZABETH A. GREENER, Superintendent of Nurses, Mount Sinai Training School, New York: I fully agree with Miss McMillan that after such a comprehensive study of this subject had been made by the Rockefeller Committee very little is left for any of us to suggest. Regarding the twenty-eight month plan I understand it is the intention of the Committee to have the student nurse relieved from certain highly specialized types of nursing service now given in connection with the three year course and to have the twenty-eight month training along general lines as a preparation for straight bedside nursing. This should relieve both training school and students of a certain amount of unnecessary work. Students who wish to progress

beyond this point and prepare themselves for distinctly executive or highly specialized work could be enrolled for whichever type of work they wished to prepare for in the extra eight months' course. Such a plan as this might prove very desirable especially if schools would hold these elective eight months' courses open for their graduates to return after a year or two of outside experience, if they desire to take this extra training. While this may be rather a hazardous experiment, I think it is one which is well worth trying out. But it should be tested in the right way by enriching as well as shortening the present period of training.

MISS KATHERINE G. KIMMICH, Superintendent of Nurses, Bridgeport Hospital, Bridgeport, Conn: We made a mistake when we thought we could give a training in three years which would fit nurses to do all sorts of special work. I am glad that the Rockefeller Foundation is recommending the twenty-eight months' course if for this reason only; and also to make us realize that this training is only basic. If special fields are to be entered special training is necessary.

The twenty-eight months' course at the Bridgeport Hospital is working most satisfactory. We have estimated carefully the time to be spent in the different departments. The theoretical work is increased over what it was in the former three years course, and more careful supervision is given to the students on the wards. The routine work is assigned to the maid helpers and orderlies.

MISS E. M. LAWLER, Superintendent of Nurses, Johns Hopkins Hospital, Baltimore: I think the question of the twenty-eight months depends entirely, as someone has said, on just the arrangement of that line. It will be understood that a great deal of the work now done as part of the training will have to be eliminated, I also think it ought to be definitely understood that it is just a basic training and we should encourage the nurses to take the full three years. I think also that we ought to make the point that Miss Logan made very clear, that it would require the additional eight months to prepare the nurses for any of the special work.

There is one other point in the Committee's report if I might speak of it, and that was the question of the training of the second group. It mentions, I think, that they thought they might be trained in hospitals where there are training schools. It seems to me that a question you have to consider very seriously is whether you can arrange to train the second group of nurses in the hospital where they have a training school.

MISS McMILLAN: Don't you think that the length of the

course depends somewhat on the type of the hospital? Some hospitals should not give more than twenty-eight months. That does not mean that they are not perfectly good hospitals, but simply that they have not quite as broad opportunities for teaching student nurses. We all agree, I believe, that young women should not be held in any school for three years where there is waste of time; that the student nurse should be relieved of wholesale dusting, folding of linen and a lot of other things that for many years nurses have had to do; that out of that thirty-six months' proper time should be allowed for vacation and occupational illness; and that the college graduate can cover the course in a shorter period than the high school girl. Nowadays the young women of the country select carefully the hospitals they enter, and if a woman decides to take a twenty-eight months course she can go to a hospital giving that amount of training, allowing another woman who wishes the longer period to choose the institution prepared to give her what she wants. For this reason it would be too bad if all nursing schools reduced their courses to twenty-eight months.

The last few years I have made it a custom to ask every one of my young women why she selected this particular school, and quite a few have told me that it was because they wanted the three years course. Then there is also the question of how many will return for the suggested postgraduate course and how many will go into fields of work for which they have had no preparation and for which they will be even less well qualified than at the present time. Public health people now are demanding special preparation, but the hospitals do not make such requirements for the graduate nurses they employ. Would it not be possible to experiment with the twenty-eight months course for the college woman, and let the high school girl who is younger and needs more supervision and general teaching continue with the longer period.

THE USE OF WARD HELPERS

S. Lillian Clayton, R. N., Director of Nursing, Philadelphia General Hospital, Philadelphia, Pa.

Before we can discuss the use of ward helpers we must be sure we understand the meaning of the term.

We speak of the ward helper, of the ward maid, and of the attendant; but it is important that we do not use these terms interchangeably.

Upon investigation we find that hospitals have not settled upon any particular outline of duties, hours, salaries or training

for these three groups of workers ; and because one finds in various institutions representatives of these groups having somewhat similar duties, but performing them under different titles, this paper will not be confined to the discussion of the one type of worker—the ward helper.

For the sake of presenting the subject clearly we will understand the ward maid to be a person employed by the hospital for the purpose of performing general domestic duties in a department. No previous training and no educational standards are required, except such standards of personal integrity and faithfulness to duty as would be desired in a servant wherever employed. The salary and hours should be such as prevail in any given locality. The same reference should be required as would be expected in a home upon the employment of a servant.

The second group of workers we will term the ward helpers. This group should have more intelligence than the first group. No particular educational standards need be required, except that they speak and read the English language. Their personal appearance and conduct should be such as to be acceptable to the patients. They should receive no training, nor should they have duties that could in any way be interpreted as nursing experience. Their hours and salary should be the same as those of the ward maids, or perhaps the salary might be somewhat higher. Their position as ward helpers should not be considered as experience qualifying them in any way to serve the public in the care of the sick, whether the sickness be acute, convalescing or chronic.

Among the duties they may perform are dusting, cleaning utensils, caring for linen, arranging flowers, taking patients to sun parlors or X-ray laboratories, arranging trays, feeding patients, etc.; in other words, the duties of these workers are not fixed. The three important points to remember are that the workers are employed as workers not learners; they receive no instruction, and the result of this experience will in no way prepare them for the care of the sick, nor should they expect it to do so.

In order that there be no misunderstanding as to this, thereby causing discontent and friction, they should be thoroughly acquainted with these facts before being employed.

The third group of workers we will, for the present, term attendants.

These women should have completed grammar school; they should be properly qualified physically and personally; they should receive from the hospital maintenance, uniform and a small allowance.

A carefully prepared outline of training, both practical and

theoretical, should be given, covering eight or nine months. At the end of this term they should receive a certificate and should be ready to leave the hospital. If they remain after the completion of their course they should receive a salary. This salary should be determined by the standard of salaries in a given locality.

Hospitals desiring this class of workers, and not giving a course for attendants, should employ them as stated above.

The content of such a course should be determined by a State Board of Examiners for Registration of Nurses. The type of institution in which this training may be given should be determined by state laws, and the worker and the patient should be protected by proper legislation.

The use of these groups by any given hospital will be determined by its type of patients, its economic necessity and by its interpretation of its own function in the community.

The hospital believing that it has an educational function in the community, therefore desiring the most scientific care for its patients, will provide a personnel making such care possible.

Ward maids and ward helpers will be employed in such numbers as to make possible the use of all scientifically trained persons to the best advantage.

Persons who by virtue of their high grade of intelligence, personality, training and experience have been employed for these services, will be detailed only to the actual care of patients and to the making and recording of scientific observations. This applies to graduate and to student nurses.

This will be an economical policy, also, for by so doing the course of training for the student nurse can be shortened, and the graduate nurses employed will be fewer in number, when their time can become concentrated upon the patient, his personal and scientific care.

The same hospital will employ trained attendants for such patients as do not need the time of the student nurse or of the graduate nurse. In this age of specialization, all of these workers may have a place.

In the hospital caring largely for chronic patients all three groups of workers can be employed, with a sufficient number of graduate nurses to make the care of the patients safe. Again, specialization will promote economy in administration, as well as making safe and scientific the care of the patients. The adequate use of these three groups of workers in hospitals is largely a matter of education and of adjustment.

We have spoken briefly of the meaning of these different groups of workers, and of their uses. We would now speak of

two important points to be considered by those who desire to introduce these workers into their organizations:

First—What obligations do any such organizations have to these workers?

Second—What obligations do any such organizations have to the public in making it possible for these new types of workers to assume responsibility for the sick in the community?

In answer to the first question, the organization admitting these groups should know that it can do so without exploitation. In the case of the first two groups, proper working hours, living conditions and fair salaries will prevent any such accusation. It might be added that it will be a great advance in hospital administration when welfare departments are considered a necessity.

Hospitals are increasingly being placed on a business basis, they are becoming intricate in their organization and administration. Because of this, they should consider the welfare of their employees. All too often they are concerned only with the welfare of the patients and of the nursing personnel.

In the case of the third group, the responsibility of the hospital lies in being able to provide the proper working and living conditions; in planning for and carrying into effect the outline of training promised; in providing the proper supervision while this training is being received; in using all its influence to secure proper state laws for the registration and supervision of these workers after graduation, and last but not least in absolutely refusing to prepare such a group of workers unless it can be done in perfect fairness to the group, to the patients and to the public.

In considering the second point: What obligation does any organization have to the public in making it possible for these new types of workers to assume responsibility for the sick in the community?

First—Not to employ more helpers in the hospital than are needed in the performance of their particular duties. By doing otherwise these workers will eventually assume nursing duties which will lead to a misrepresentation of themselves to the community later on, thereby rendering them dangerous factors to public health.

The institution must not make it possible for them to imitate nursing procedures, which they are incapable of performing scientifically, resulting thereby in reducing the patients' faith in the hospital.

Second—In the case of the patient in the hospital, no one (regardless of his financial standing in the community), if critically ill, should be subjected to the care of this group, for there will exist a lack of confidence on the part of the patients whose

care depends upon them, and their well-being may be seriously affected by the lack of necessary intelligent care.

Third—If attendants are trained, the hospital should consider it necessary to have as satisfactory a reputation for its attendant school as it would for its nurses' school.

Fourth—Hospitals should refuse to train attendants until the necessary legislation has gone into effect, making it impossible for the medical profession and the public to employ them, under any misrepresentation as to their preparation.

The trained attendant is a necessity; but if she is to really perform her function in society the following principles must be adhered to:

First—The proper course of training must be decided upon as to content and duration.

Second—The proper provision must be made for her living and training.

Third—The proper laws must be made as to the conditions under which she shall practice.

This worker has been tried in many hospitals, private homes and public health organizations. There is no question as to her value; but this value has been limited because the principle, as stated above, had not been observed.

An example of the foregoing statement can be given from the experience of the Visiting Nurse Association in Cleveland.

In 1918 that Association announced a department of attendant service. That service was planned to provide sick room and household assistance in families which could not afford a private trained nurse or where full time skilled nursing care was not needed. She was to be called on in emergencies. The training given by the Visiting Nurse Association covered the simple forms of sick room care. The salaries offered ranged from \$10.00 to \$15.00 per week. Very soon the salaries had to be increased to \$18.00 to \$20.00 per week; but these soon became prohibitive.

The Association charged \$1.50 per week for the visits of a supervisor; but the families did not want the supervision. They liked the attendant, but they did not see the need for supervision. If the family needed an attendant a second time they employed her without the supervision of the Visiting Nurse Society. The attendant soon acquired that "little knowledge which is a dangerous thing." Ultimately, some of these women whom the Visiting Nurse Association had trained followed the example of the practical nurses and began charging \$20.00 to \$25.00 per week to other families and to other physicians. Without regard to the actual value of her service, she fixed her own price and her own standard of work.

Thus it became evident that the attendant department of the Visiting Nurse Association of Cleveland was not fulfilling the purpose for which it was designed, namely, that of supplying assistance to households of limited income which could not afford graduate nurses.

The question arose with the association—to what extent would it be responsible for turning these slightly trained women back into the community as nurses?

If the public fully understood the difference between graduate and practical nurses, if the public could be depended upon to exercise the amount of discrimination necessary, then the public could defend itself. But we know that the public cannot do this.

It therefore becomes the duty of hospitals and of organizations to protect the public in so far as possible.

Because of this, in April, 1920, this Association announced that after a trial period of more than two years, the Department for Attendants had been abandoned.

(The foregoing statements concerning this experiment are taken from "The Public Health Nurse," April, 1920.)

The need still exists everywhere; but until a united effort on the part of hospitals, and on the part of nursing and of hospital organizations, be started to meet the need with justice to all concerned, through proper training and adequate legislation, it will not really be met.

This brings us to the recent report made by the committee appointed by the Rockefeller Foundation to make a study of the nursing situation in this country. This report you are hearing today; but I wish to refer to that part of it which considers the "Field for a Subsidiary Type of Nursing Service."

In this section we find that private physicians, health administrators and hospitals need two types of nursing service, emphasizing the fact that these two types should be provided according to the type of illness and not on economic grounds.

The latter, "economic grounds," is questioned by this committee, for it has been found that the margin between the average annual income of the private duty nurse and that of the domestic servant is not so great as to permit of the existence of an intermediate grade on a salary level very much below that of the present registered nurse. This committee recommends these workers for the mild or chronic and the convalescent case. They further remind us that of the three hundred thousand male and female nurses in the United States, more than one-half are of grades below the standard of the graduate nurse. This class of workers is a real fact and it fills a real need.

The nursing profession has discharged a fundamental duty

to the public in stimulating the development of registration laws which define and delimit the practice of their profession, and which protect the community against fraud and exploitation by those who collect fees and assume responsibilities to which their qualifications do not entitle them.

In addition to the registration of the trained nurse, it is essential that the lower grade of nursing service should be defined and registered. The committee recommends that the name of this group of workers be "Nursing Aide," as it meets the need for clear differentiation, while providing the subsidiary worker with a suitable name.

With the two distinct grades of service available, the individual physician would be responsible for the choice of a trained nurse or a nursing aide, in a given instance.

The public can be safeguarded in these matters by state legislation for the definition and license qualifications of each nurse or nursing aide furnished.

The committee's conclusion of the matter is, "That steps should be taken through state legislation for the definition and licensing of a subsidiary grade of nursing service, the subsidiary type of worker to serve under practicing physicians in the care of mild and chronic illness and convalescence, and possibly to assist under the direction of the trained nurse in certain phases of hospital and visiting nursing."

(The above statements referring to the Rockefeller report were taken from Miss Goldmark's report of the work of that committee.)

In conclusion, we beg to state that we believe the ward helper and the nursing aide or attendant can best be used in our effort to carry out the ideas of adequate nursing care for all the sick public, under conditions mentioned earlier in this paper, and voiced in a different way by the Rockefeller Committee. If the Hospital Association and the Nursing Organizations unite their efforts, and have the same objective for the use of these workers, we believe that much of our present problem as to how to supply adequate care for the sick will be solved.

MISS JANE M. PINDELL, Baltimore, Maryland; Many of us have struggled for years with this problem of nurses' attendants and ward maids, in public, private and semi-private institutions. We want, in the first place, better educated women for our schools of nursing. If we go through the different states in the rural districts and realize what a tremendous problem it is for parents to send their girls to the high schools, then certainly every one of us should never lose an opportunity to point out the importance of having increased appropriations in order to

increase the number of high schools and make it easier for girls to enter.

MISS MINNIE GOODNOW, Superintendent of Nurses, Children's Hospital, Washington, D. C.: I want to compliment the Foundation; the Foundation gave out a statement that each year there graduated from the high schools of this country 150,000 young women. The hospital training school requires 25,000 new pupils each year. Now that means that under present conditions one girl out of every six who graduates from high school must enter the nurses training school. We know that no such number will be available nor desirable; therefore I think Miss Pindell has struck the keynote of the solution, that we must get more girls into high schools. It also becomes absolutely obvious that we must train attendants or ward helpers or something in order to have enough nurses to take care of the patients.

MISS VAN VORT: I do not believe the training school for nurses is the place to train attendants. I think it is a good place for the ward helper, as she has proved that she can be of inestimable value to the hospital and the training school.

During the past year in my state, we have had many meetings and conferences bearing on this subject, committees having been appointed by the Medical Society of Virginia, the State Nurses' Association and the League of Nursing Education. The legislature last winter re-enacted the bill for the licensing of attendants—this bill having first been enacted during the war and known as an emergency one. In addition to licensing attendants it gives hospitals and nursing centers, through the State Nurses' Association, the privilege of training attendants at the discretion of the Association. I had the honor to be on this committee and am glad to say that all three committees were most emphatic in their belief that the attendant was necessary and she must be given a thorough training but not in the hospital where nurses are being trained. We have put it up to the small hospitals especially that have always shown a shortage of student nurses and always will; we have put it up to the community hospitals in our rural districts; we have put it up to even the larger hospitals that are unable to procure a sufficient number of student nurses, for various reasons, to properly care for their patients. Personally I believe schools that have a shortage of students at the present time are not giving the students what they desire. Satisfied students bring in others. Therefore it is up to the hospitals referred to, if they cannot give the proper training to student nurses, if they are continually showing a shortage of student nurses, to discontinue the attempt to train nurses and to start a training school

for attendants. We do not believe that the hospital doing this is lowering its standard at all—in fact, we think it is raising its standard—it is supplying a want, a demand that must be met. Our people must have an attendant, a practical worker or whatever you may call her, that may be obtained for less than \$35.00 or \$40.00 per week. Many hospitals have signified their willingness and desire to “fall in” with this new work at once.

We have gone well into details regarding the training of these attendants, recommending curriculum, allowance to be paid, length of training (which will be one year), etc. One thing we have included which I am heartily in favor of and that is that a uniform be adopted by these schools for attendants, all attendants wearing this uniform while in training and after graduation; that a patent right be obtained for this, and the same sentiment be created for this uniform by the attendant as the graduate for her white uniform. We believe, otherwise, that the attendant after leaving the hospital will wear the garb of the graduate nurse, giving the impression to the public that they are graduate nurses.

MISS HILLIARD: In this democratic country of ours nobody can be prevented from wearing any kind of a uniform they like; it would be considered class legislation.

CHAIRMAN LOGAN: The Chairman would like to ask Miss Van Vort how many graduate nurses would be employed in those hospitals which maintain these training schools for attendants?

MISS VAN VORT: Every training school for attendants must have its quota of graduate nurses. I was very much in favor also of having a social service worker connected with these schools for attendants, especially in the rural districts. This was ruled down. To every five or six attendants there must be a graduate nurse.

MR. S. A. STEPHAN, Protestant Hospital, Columbus, Ohio: I would like to call attention to the fact that a little matter occurred in our hospital a while ago which would have some bearing on this subject of different requirements in the training of nurses. We employ for two or three months in the summer time during the vacation months a practical nurse to aid in the hospital. The young woman had been doing nursing for some time previous to the time that we employed her, but soon after she went out from our hospital she took advantage of the opportunity and thereby tried to improve her standing by making it appear that she was a regular graduate from the institution. I suspect that if you give certain young women a shorter course

than others in the hospital, you will meet with that difficulty everywhere and all the while. I do not know how you can protect yourself against it and I think I would be reluctant to give two different courses in our training school, one longer and one shorter than the other, because of that fact.

MISS EDITH L. BURNS, Superintendent Home Hospital, Rome, New York: I do not believe a small hospital is the right place to train attendants. The conditions existing in a small school would make complications.

DR. ERNEST P. BOAS, Montefiore Hospital, New York City: I should like to discuss this paper from the point of view of the institution. We have had some experience with attendants and with ward helpers. We used to have a school for trained attendants and found it was not at all satisfactory and as a consequence we discontinued it about a year and a half ago. A good many of the points brought up in the discussion we experienced as true. First of all, in a large city like New York it is very difficult to get a good type of woman to enter the school. We could not impress upon them a sense of responsibility, and even with the limited work they were supposed to do under the supervision of graduate nurses we had continued complaints from the patients; they lacked that sense of responsibility and devotion to duty which we find in the better educated woman. Moreover, we had no control over them at all after they left the hospital and I know for a fact that every one of them posed as a graduate nurse and got the same fees, in spite of the fact that New York State has legislation supposed to prevent this. There is no possibility of control when a woman can go to a private registry and call herself a graduate nurse.

I have noticed, too, that most of the nurses who have been interested in developing training schools for attendants have approved of the idea, but have always suggested that some other hospital than their own do the developing. That feeling is reflected in the discussion this afternoon. I happen to be associated with an institution which cares for chronic patients. Most people who do not know what a hospital for chronic diseases is believe that it is a home for incurables, which takes purely custodial cases that require practically no medical or nursing attention. I will agree that in such institutions attendants may be trained. In association with our hospital we have such a home, and if we are to train attendants anywhere we can do it there. At the present time that home is being conducted by a graduate nurse, with four or five ward helpers or ward maids. They are women of the servant class, with enough experience to feed and bathe the patient and add to his comfort.

But in an institution for chronic diseases which endeavors to treat and study chronic diseases scientifically, where there are cardiacs, diabetics, orthopedic patients, and others, you need graduate nurses. We are now, with the permission of the state authorities, starting a training school for nurses.

MISS GEORGIA M. NEVINS, Superintendent St. Luke's Hospital, New Bedford, Mass: If there were a vote taken on the question of attendants would not the majority of this audience be opposed to them? And but for the fact that after the closest study on the part of the Rockefeller Committee it was decided that there is a need for attendants, would there not be very little sentiment in their favor? It seems to me one of the most perplexing nursing problems that we have ever faced. I sympathize in the point of view of the last speaker.

MISS ELIZABETH A. GREENER, Mount Sinai Training School, New York: By actual count, the Rockefeller Committee has discovered that more than 50 per cent of those doing nursing work at the present time fall below the grade of registered nurse. They are not registered nurses, nor could they be registered. The size of the two relative groups clearly indicates the importance of each, but there can be no question that the unregulated nurse is one presenting great danger. Since such a group is necessary some provision should be made for their proper training. While the training of male nurses may not have proved a great success there seems to be no reason why we cannot do better with a group of this kind if it is done under proper auspices. Of course the great question is "Where shall it be done?" No one appears to be at this moment very anxious to undertake such work.

CHAIRMAN LOGAN: The Chair would like the privilege of the floor for a moment to call attention to the point also made by the Rockefeller Committee that there was so little difference between the salary of the ordinary domestic servant and the graduate nurse that it would be practically impossible to create a cheaper grade or class of bedside worker. Would anyone like to speak further on this question?

MISS HILLIARD: I might say that to me the chief objection to training attendants seems to be the fact that they do not practice as such but as trained nurses. This defeats the object for which they were prepared.

MISS JANE M. PINDELL: It seems to me very important that we do not lose sight of the fact that the patients or inmates of large institutions have to be cared for, and I put myself on record as believing that there are institutions where they must have trained attendants. Perhaps if Miss Ward is here, from

the Welfare Department of New York, she can tell what is being done there.

MISS McMILLAN: Are we considering the question of training people just for the needs of the individual hospital or of training these people to do nursing work outside of the hospital? It is possible to employ men and women of some ability to relieve the nurses of a great deal of routine work in the hospitals; but these people, while they can do satisfactory work of the nature they are designated to do in the various institutions, are hardly the ones we want to send out and be responsible for when working in an independent way and beyond hospital control.

THE ROLE OF THE HOSPITAL NURSING DEPARTMENT IN THE COMMUNITY HEALTH PROGRAM

Annie W. Goodrich, R. N., Director of Nursing, Henry Street Settlement, New York City

I think I shall have to ask to deal rather with the role of the hospital than the hospital nursing department in the community health program, for the part of any department is inevitably bound up, or certainly to a very great extent, dependent upon the policy of the whole.

I must further add that I am suffering from a profound awareness of my inability to present in other than slightly differing phraseology what has been said forcefully, frequently, and convincingly by the various specialists in the new field of preventive medicine, beginning with the public health nurse whose maiden speech dealt with the inadequacy of the hospital training for the field of public health nursing.

Each in turn has been convinced, and rightly, of the need of every practitioner of medicine or nursing of first hand knowledge of their specialty and a broader interpretation of their function in the health field at large, until we have reached a final summing up of the discussion in the exhaustive analysis of the Rockefeller-Goldmark report on nursing education, its weaknesses and strengths on the one hand, and on the other, through the briefer but broad conception of the hospital function in the health movement, through the report on the Principles of Hospital Administration and the Training of Hospital Executives, by Dr. Rappleye.

There are, we believe, some who do not agree in the importance of the role of the hospital in the new health conception. For ourselves, it matters not how intense or intelligent is our appreciation of the new outlook on health, sublimated recently into the term "positive health," or that we are in complete agreement on the importance of approaching the subject of health from the normal rather than the abnormal standpoint. Never-

theless, we believe we still have to deal, in the matter of the health of the community, with certain facts, such, for instance, as:

- (a) The tendency of all normal individuals, rich or poor, to be indifferent to the subject of health until rapped into attention by the handicap of some defect, personal, or of some individual with whom they are concerned.
- (b) That the prevalency of defects has brought all classes of society to recognize, even to demand, the service of those health agents designated as physicians, nurses and dentists, this fact giving these practitioners the opportunity of wide and frequent contact and the advantages of accepted authorities.
- (c) The defectives in any given unit of population increase in almost direct ratio with the decrease in the wage scale, which connotes a decreasing body of knowledge (I refuse to say intelligence) as well as opportunity concerning the procedure necessary to change the situation. "The destruction of the poor," said Solomon, "is their poverty."
- (d) Only a comparatively small number appear to be ready as yet to subscribe to the practice of preventive medicine, even though believing in the theory. Evidence of this may be found in the failure to support such measures as the Shepard-Towner Bill, or the Peace Program of the Red Cross, and in the still general habit of institutions and organizations primarily concerned in the care of the sick, to limit their function to a given situation and to fail to assume the responsibility of health education relating to such a situation.

The following illustrates these facts: The young wife of a professor called for advice and assistance concerning her new born baby that had cried all night. She stated that she had just returned from the maternity hospital and that she was totally ignorant as to its care, such as bathing, diet, etc. She had called the visiting nurse service and was told that it was impossible to send a nurse as the organization was obliged to give precedence to the sickness cases, and the daily program was more than filled. In this episode we have an almost complete picture. The young mother not alertly seeking information before leaving the institution. Not until something went wrong with the baby did she awaken to her educational needs, while the hospital and the visiting nurse service were functioning in exact accordance with the tenets of curative, not preventive, medicine. This episode did not occur in New York; but in the numerous places where it has been repeated it invariably brought forth a story its almost exact counterpart.

The preceding facts seem to me to summarize as follows: The prevalency of defects; the place in the family life accorded physicians and nurses by a society still indifferent to its health needs; the scientific equipment as expressed in hospital machin-

ery and personnel now required for the effective dealing with defects; the increasing use of these institutions for the maternity case, and their continued and extending use as laboratories for the preparation of health workers of varying types, all demand that the hospital of strategic importance in the health problems function either as the health center within a given area or at least as a definite link in the chain of health activities required for a community health project. To do this effectively, however, will necessitate reconstruction of its program, method and system.

Mr. Bailey Burritt of the Association for Improving the Condition of the Poor, in writing on "The Family as a Unit in the Control of Disease," opens his paper with the statement that "Public health nurses and public health authorities must increasingly take the family into account if we are to hope for further substantial reductions in morbidity and mortality rates, and particularly if we are to hope for marked progress toward the goal of making every individual a strong, healthy, able-bodied citizen over a considerable period of years."

The making of the family the unit of hospital responsibility, if consistently carried out, will require that the entire personnel of the institution shall experience that life within its walls that will most effectively and enduringly impress upon them the essentials in health habits for their personal life not less than for the lives they are directing or being prepared to direct.

One is tempted to digress, if digression it should be called, to discuss the changes that would immediately be effected if the hospital interpreted its case responsibility as extending to its large and varied personnel and in the terms of the family rather than of the individual.

The consideration and direction, for instance, of the life of the internes, their hours, their housing, their diet. I recall a recent recital by an overstrained interne of consecutive days and nights of service with its attendant complications of sleep and food, and my mind is crowded with memories of conditions reacting disastrously upon the patients as well as the hospital personnel, and which a health program for all might have averted.

The assuming of the family as the unit of responsibility would bring about other much needed adjustments, the most outstanding of which will be the limitation of the hospital function to a given area or unit of population, with a resultant coördination and correlation of all health agencies, educational or remedial.

Progress in the direction of this unification idea there has

been. The slow but steady development of the central schools of nursing, the growing relationship between the school of nursing and the university, the increasing coöperation between social and health organizations, the numerous experiments, such as that of Framingham and Mansfield, or in New York, where a number of projects are under way in which three or more organizations have come together, are definite achievements toward this end; but in relation to the output of convincing presentation of the need as expressed by progressive social and health authorities, and in the face of the possibilities for rapid and great achievements through complete unification of means and ends, they are agonizingly slow and intolerably aloof.

It has been said that "the real task for workers in the field of mental hygiene is translating insight into influence"; so also might it well be said concerning the task of all health workers, for despite these evidences of progress almost incredible situations exist through a failure to act in terms of community development and well-being.

In the light of present day knowledge surely a local situation is astounding that results in the sending of students of a school of nursing—of a state having a population of 2,500,000, which would represent approximately 1,000,000 children—to the eastern coast year after year for a course in pediatrics; or the students in a city having a population of approximately 700,000, which means over 14,000 births yearly, to an adjoining city for a course in obstetrics. One hesitates to call attention to these facts lest the students be withdrawn from the distant institutions and thereby lose the opportunity of an essential experience; but, on the other hand, the loss to the locality of needed service and the economy of time and money which a different adjustment would mean, demands careful consideration and a speedy solution of the problem.

In one city of something over 200,000 (which means approximately 100,000 children) maintaining several schools of nursing, with the exception of one school, almost none of the students were receiving a course in pediatrics (the one school was sending its students for a month's experience to another institution). It was true that the infant mortality in that city was low, but on the other hand, in its two tuberculosis sanatoria were to be found a rather large number of children ranging anywhere from one to fifteen years. The heaviest age group in its State Hospital for the Insane was from twenty to twenty-five years. There was one institution for children with an approximately fifty-bed capacity, mainly for orthopedic cases; but that had enlarged its service to include medical cases, and was doing rather an inter-

esting piece of work with syphilis; for instance, there was on the day the institution was visited a case of twins both mentally and physically crippled. The physical condition had been definitely improved; but the mental condition was, of course, a life handicap. It was stated that the mother was willing to submit to examination and treatment, but the father had refused both. There was another case which had been watched with great interest; brought to the institution apparently blind, it responded to treatment so rapidly that at the end of two months it was dismissed cured, with the sight restored.

To such an audience I need not dilate upon the value of these experiences from a social as well as medical standpoint. I think I should add that the head of the institution was keenly anxious to have students from the various schools for a period of two or three months and did not desire to establish a separate school. The failure, however, to effect this coöperation was leading to definite plans for its establishment. These illustrations could be presented literally by the hundreds. Students are deprived of experience or service is not rendered mainly because of a wrong point of view as to the relation between these organizations and institutions and the community at large, the keynote of which is struck in the still frequent phrase, "our school, our patients, our family." What creates ownership of students, of patients, or families? Education, for which the students pay in service or money, sickness, care rendered to a particular member, relief given for a particular case.

Born of philanthropy rather than coming into existence through the felt need of the members of the community, these organizations and institutions—finest flowers, as it were, of a passing system which has indeed sown the seeds of the new social order—to serve effectively, indeed to survive in a democracy, must know themselves to be responsible to the community, not for the community whom they serve. Their roots today must be sunk deep in conscious community ownership in order that they may receive the support—moral and financial—for effective functioning.*

Here, too, in the matter of financial community support we can also strike an optimistic note, for we find evidence of development, in the most experimental stage, it is true, but nevertheless quite definite.

*It is my belief that an effective transfer from philanthropic to governmental support is not possible because of the present tendency to control through symbol rather than *intelligent* common consent. The subject of symbols has been ably dealt with by Walter Lippman in "Public Opinion," Part 5.

In a recent issue of a magazine called "Coöperation," we find the following:

"Since 1904 the workers of Madrid, Spain, have maintained a health department in the coöperative society (La Mutualidad Obrera). This provides complete medical service for eight dollars a year for each member. There are seven clinic-hospitals in different parts of the city, each equipped with about ten beds, an up-to-date operating room, a dental clinic, consulting rooms, an immaculate tile kitchen, and a garden for convalescents. Each has a staff of physicians, surgeons and nurses. The drug store connected with each hospital furnishes medicines free of charge to the members, and sells to non-members at the current price. The coöperative society supplies the hospitals with provisions. Each member pays 66c a month to the society. For this, besides the benefits of membership, he receives free medical service, major operations, consultation and advice at any time."*

Again in New York City under the title of the Manhattanville Health Society an experiment† of this nature is being carried on based on the computation of three organizations that their service is subscribed to by 5,000 people and could be supported at the rate of \$6.00 per capita subscription.

We are quite confident that when the hospital assumes the place in the health program which Dr. Rappleye has so justly assigned it the many greatly needed readjustments will speedily follow:

"Position of the Hospital—The common ground upon which the patient, the community and the professional groups meet, and representing the general type of organization which, with proper amplification and development can best meet the problems suggested, is the hospital. It evidently occupies a strategic mid-position and has open to it a great opportunity and a corresponding obligation, not as an institution for the salvage of human wreckage, but as a coördinator of activities—professional, economic and social—in their application upon the problems of health."

"In such a conception, the hospital represents not the administration alone, but a coöperative organization of workers and leaders devoted to the ideals of their respective professions."‡

The tendency of physicians and nurses to over-emphasize the physical aspects of the case, with their resulting disregard or minimizing of the social factors directly affecting it, has been advanced as a distinct handicap in their effective functioning as

*Coöperation—October, 1922.

†The plan for this health project was solved by Ella Phillips Crandall, recently Executive Secretary of the National Organization of Public Health Nursing, and is subsidized by an unknown donor.

‡The Principles of Hospital Administration and the Training of Hospital Executives, page 10.

health workers. This has been given, indeed, as one of the important reasons for the creation of social workers without medical or nursing training. A careful consideration of the question leads to the conclusion—while fully accepting the fact of this tendency and also the place in the health program of this type of social worker—that this is not the best solution of the difficulty.

The purpose of a hospital or dispensary is to meet the need of physically or mentally defective individuals whatever may be the contributing or underlying cause of such defects. Beginning with the chief executive down through the various departments wherever the medical situation dominates there is definitely required a medical or nursing personnel. In the cause of effective and economic service, such personnel should be relieved as far as possible of the non-medical features of the case through the service of other workers skilled in such features; not less also in the cause of economic efficiency should the medical workers be expected to have such knowledge of the non-medical aspects of the case as to understand the importance of their relation and furthermore to deal with such aspects where the body of the work will not justify the two specialists.

This implies a knowledge of the technique of case work for both physicians and nurses. It will very possibly be taught more effectively by a social worker than a physician or nurse, but whoever teaches the subject, let me add, will probably do so with better effect if prepared through a course in teaching methods. The same could be said concerning the technique or the science, for such it has come to be, of administration. Such knowledge should be required of every administrator today, but to select a physician merely because of such knowledge to administer a business house or to select a business man to administer a hospital is, we believe, poor judgment, because of the waste of medical knowledge on the one hand, and the handicap of the lack of it on the other. It would, however, be equally poor judgment to appoint as the chief executive for either position a person with a predominantly research type of mind. In the personnel of the business concern of today would probably be included physicians and nurses, while the personnel of all modern hospitals includes nutrition workers, statisticians, librarians, accountants, engineers, and an almost endless variety of medical and non-medical workers.

In short, the purpose or function of an institution should determine not only the type, but the relation and distribution of its personnel. Whatever may be the process or processes through which the result sought may ultimately be effected, it is desirable

that a person seeking such result through an institution created for the attainment of that end should be as immediately as possible related to those whose discernment in the matter has been "sharpened to a point" through training and experience. The failure to appreciate the importance of such adjustments has been and still is one of the outstanding weaknesses of hospitals and dispensaries, due mainly to an inadequacy of funds and ipso facto an insufficient and inefficient personnel.

The introduction and rapidly increasing number of private patients, since their demands must be given consideration, have been beneficial; but the overcrowding and understaffing of departments, such as dispensaries and public wards, still obtains. Personally, we do not believe that the development of new types of workers is needed so much as the provision of a different and broader content of education for the medical and nursing personnel and the use for their respective specialties of a sufficiently large and varied staff to enable courteous and intelligent investigation and direction through the now labyrinthine procedure of every case.

The picture as I see it is kaleidoscopic, calling for an immediately close relationship with certain members of the group today and others tomorrow, while certain not less essential workers, the pharmacists, for instance, may have no first hand contact with the case at all.

The essentials in the process of social evolution have come to chart themselves in my mind in relation to the health movement somewhat as follows:

- (a) **The machinery or material necessities**, such as funds, buildings, and equipment—their function never, I think, more finely expressed than through Dr. John Finley's interpretation of Rathenau's idea in his "New Society."

"For one of the high ends of economics is conceived to be to increase the flow of earthly goods to the sacrificial places where the material is subtilized to become spiritual."*

- (b) **The personnel for Research** with seeming flippancy but profound truth defined by James Harvey Robinson as "the diligent search that enjoys the high flavor of hunting."
- (c) **Education**—which is the dissemination of knowledge so obtained—"Democracy demands," says Professor Kayser, "that the truth be attended and be followed by exposition, by interpretation, by evaluation, in terms that the educated layman can understand."†

*Rathenau's Vision of a New World—John H. Finley, New York Times, July 2, 1922.

†Mathematical Philosophy, page 349.

- (d) **Practice**—which is the application of this knowledge—"To be really creative," to again quote Dr. Robinson, "ideas have to be worked up and then put over so they become part of man's social heritage."

Since health provides a great, possibly the greatest common denominator, I conceive that the professional or special preparation of all types of health workers should be based on as similar a body of scientific knowledge as possible in order not only that there shall be a complete current of understanding between the workers representing the three essentials—research, education, and practice—but because constructive functioning in a creative scheme demands of every worker a modicum of each. For the nurse, and it is with her function that this paper is especially concerned, I believe that this underlying body of science should be of college grade and should be obtained through the first two years. Following this, she should have not less than two and, better, three years of hospital experience. The value of the hospital as a laboratory cannot be too greatly emphasized. The congregation and variety of cases makes possible in a few months an experience that it would take otherwise years to obtain, but in this bedside experience should be included those diseases now prevalent, such as mental, tuberculosis, and pediatrics. Furthermore, definite and comprehensive experience should be given in obstetrics and adequate experience as well as instruction in normal child life. The period of case experience should be of sufficient length and continuity to fix impressions and enable experimentation for the end result.

Of the greatest importance in this scheme of education will be the acceptance by the hospital of the family as its unit of responsibility. The fact that the hospital wards represent but one piece of the machinery in any health program, that the dispensary, the health station and all their scientific equipment, with their varied and adequate personnel, even the home, the occupation, the recreation of the individual case are part of this project will insure that case technique not less than case experience shall be included and throughout the professional preparation of the nurse. There must be such provision of paid staff for the care of the patients as will enable each student to secure a complete cycle of experience and a reasonably close correlation of theory and practice as expressed in nursing procedures, problems of nutrition, etc.

The selection, the function, even the daily life of the staff or faculty are not less important matters for consideration than are the problems relating to the student life. Briefly summarized, the outstanding essentials for this group are as follows:

- (a) A broad general and professional preparation. Specialization in each and every department or subject under direction, for example, for teaching pedagogy. An adjustment of time that will insure the essentials we have mentioned for a constructive program—research, education and practice—their proportionate part.
- (b) Opportunity for enlargement of life through a varied experience, such as rotation of executive and teaching experiences, group conferences, exchange experiences with other institutions and organizations.
- (c) The placing, so far as possible, of all personnel directing the various phases of the health movement on the executive and teaching staff of the school.
- (d) Free discussion and participation in determining all questions relating to the organization and administration of the school, its laboratories, the hospitals, and, as far as possible, outside organizations, with constant emphasis on the inter-relations of all persons and departments concerned in the project.

Finally, the hospital as an exponent of health should provide for its entire personnel sanitary surroundings, adequate and suitable diet, and a properly proportioned daily life from the standpoint of occupation, intellectual development, recreation and rest.

Such a program, such a policy, on the part of the hospital through the educational force of example would result in a steady outpouring into the stream of life of workers whose deepened sense of social responsibility not less than their scientific intelligence permeating the social structure will accelerate immeasurably the community health and well-being which we are seeking.

DR. CHARLES W. MOOTS, Chief of Staff of Lucas County Hospital, Toledo, Ohio: A couple of years ago I was at a funeral at San Diego, California, and the clergyman was late, and one old gentleman got up and said "If nobody wishes to occupy the time, I would like to take a moment discussing the beauties and climate of southern California." So as nobody else wishes to talk, I would just like to take this moment, as an outsider, a simple, ordinary surgeon, having been teaching nurses for 27 years. I want to congratulate you and the speakers on the very beautiful attitude you have shown in these discussions this morning. This sympathetic attitude shown toward the report of the Rockefeller Committee has not been taken by all nurses in this way, and I have heard some very bitter criticisms by nurses about this affair. I have also heard some fool doctors make some very bad statements, especially those doctors who are connected with some little private hospital. They seemed to be intent on destroying the nursing profession.

There seems to be a happy medium here this morning, and that is what I wish to congratulate you upon and tell you that an outsider appreciates this very much. I am connected with

three hospitals where I teach and I was particularly taken with the remarks of some lady who said that we could not have the same thing in all institutions. I find that is absolutely true. There are some of those institutions with which I am connected where I certainly would dislike very much to observe anything but proper training of the highest type of nurse. There are others in which we are bound and compelled through political influences and other lines to recognize a cheaper grade nurse. It seems to me that the important thing is to get away from the so-called practical nurse, the self-appointed nurse. Now I do not know how to tell you to do that. That is what I came here this afternoon to find out. Just as an example—I recently lost the husband of a lady about 40 years old, following an operation, and when she came in to settle her bill I asked her what she was going to do and she said “I am going to nurse.” Now that woman had never had any preliminary education—it was impossible for her with her lack of training to grasp the ideas that were so beautifully expounded in the last paper read; she cannot possibly grasp them. She has no idea of the relation of her work to the community in which she lives. I called in my assistant after she left and I said, “Bill, the greatest calamity that befell us in the death of this patient is the fact that that woman is going out to nurse.” Once more I want to thank you for your very beautiful attitude and I am certainly very pleased to see it.

CHAIRMAN LOGAN: We wish to thank Dr. Moots for his words. It seems to me that it would be timely to repeat again Florence Nightingale’s statement, that nursing is an art, the finest of the fine arts, and if it is to be made an art it requires as hard preparation as any sculptor’s.

CHAIRMAN LOGAN: It is customary annually to elect a chairman and secretary for the Section on Nursing for the next annual meeting. Are there any nominations for the position of Chairman for the next meeting?

MISS HILLIARD: I would like to nominate Miss McMillan for Chairman of this Section at the next meeting.

There being no other nominations, Miss McMillan was unanimously elected.

CHAIRMAN LOGAN: Miss McMillan has been elected. It will be necessary to elect a Secretary.

MISS McMILLAN: I nominate Miss McCleary.

There being no other nominations, Miss McCleary was unanimously elected, after which the meeting adjourned.

SECTION ON ADMINISTRATION.

September 27, 1922, 2:30 P. M.—Dr. MacEachern in the Chair.

CHAIRMAN MACEACHERN: Ladies and gentlemen, if you will come to order we will start the afternoon program—a very important program—with the reports of committees.

REPORT OF THE SPECIAL COMMITTEE ON GAUZE RENOVATION

As a direct result of the interest shown at the conference in the report of the Special Committee on Gauze Renovation and Standard Dressings, it seemed wise to incorporate in the form of a bulletin the salient points of this report. The full report will be published in the official proceedings of the Annual Conference. This bulletin contains in addition certain information in response to requests made at the conference.

1. In order to portray as strikingly as possible just why gauze renovation pays in dollars and cents, the accompanying tabulation was prepared. It illustrates the line of consideration to be followed in determining the advisability of washing gauze in individual hospitals.

In this table, comparable steps are balanced, thus relieving us of the task of computing the cost of every step and requiring only the calculation of the cost of the unbalanced items. An inspection of the table shows that the items of labor in the gauze room must be compared with the cost of new gauze to an amount equal to the total gauze used. These two figures are relatively simple for every hospital executive to obtain and a comparison will indicate clearly whether gauze renovation is desirable or not for that particular hospital. The cost of labor in the gauze room (\$3,900.00) was calculated on the basis of five full time hospital helpers with a half time supervisor, at \$100.00 per month or \$50.00, chargeable to gauze.

WHY GAUZE RENOVATION PAYS!

In the following table, comparable steps in gauze use are indicated and balanced where an equality exists.

AMERICAN HOSPITAL ASSOCIATION

NEW GAUZE

WASHED

1. Delivered to gauze room or operating room from store room.
2. Opened, laid out and cut into sizes for dressings.
3. Made into dressings.
4. Made into packages, counted and stacked.
5. Wrapped and marked.
6. Sterilized.
7. Delivered to Wards.
8. Used as dressings.
9. Collected.
10. Delivered to incinerator.
11. Burned.
- 12.

- 1A. Delivered to gauze room from laundry.
- 2A. Pulled.
- 3A. Made into dressings.
- 4A. Made into packages, counted and stacked.
- 5A. Wrapped and marked.
- 6A. Sterilized.
- 7A. Delivered to Wards.
- 8A. Used as dressings.
- 9A. Collected.
- 10A. Delivered to laundry.
- 11A. Washed.
- 12A. Autoclaved.
- Balance against No. 2.

It is noted that No. 2A is greater than No. 2, so we have considered No. 2 in comparison with No. 12A. All items are balanced except No. 2A (Pulled). This item then must be considered in comparison with the cost of new gauze to take the place of the washed gauze used.

The figures indicating this relation in one hospital are:

Gauze used—New	115,255 yards
Washed	772,655 yards
Total.....	887,910 yards

Cost When Renovated.

Cost When Not Renovated.

NEW GAUZE.

NEW GAUZE.

115,255 yards @ .032.....\$3,688.16
Labor in gauze room..... 3,900.00

887,910 yards @ .0285.....\$25,440.66

Total cost.....\$7,588.16

Saving by washing gauze.....\$17,852.50

Note that the price of the new gauze purchased for washing is figured higher than the new gauze purchased for single use, in order to allow for a better quality for washing.

GENERAL CONSIDERATIONS

1. PRACTICABILITY

In considering gauze reclamation, a primary consideration is its practicability in relation to other hospital activities. The washing of gauze results in more or less accumulation of the washed products and it must be determined that this gauze is of value in one or more of the following three ways:

- a. By replacing new gauze.
- b. By replacing other materials more expensive.
- c. By securing more efficient results from the use of gauze that has been reclaimed: viz., in labor charges, equipment, etc.

The uses of washed gauze are very extensive and should be developed to the highest degree possible without creating

artificial demands. The normal demands must be consistent enough throughout the year to prevent undue accumulation of washed gauze.

These are all questions that must be considered if any hospital executive is to form an intelligent opinion regarding the practicability of gauze renovation. It is the firm belief of the committee that a fair investigation of the merits of gauze renovation will show that it is practicable in a vast majority of hospitals if not in all hospitals.

2. ADVISABILITY

In considering the advisability of gauze renovation the committee wishes merely to call your attention to the experience of one hospital that is renovating gauze. The exact figures are given in the first paragraph. Note that this hospital in question used approximately a million yards of gauze and yet purchased a little more than a hundred thousand yards. Note also the saving in this one instance of about \$17,000.00 in one year in spite of the fact that all the labor was paid labor. If these results are obtainable in this one instance and similar results occur in other hospitals washing gauze, there is no apparent reason why renovation of gauze would not effect a similar saving in hospitals in general. If the hospital has volunteer labor in any amount, the saving would be even more striking. These figures certainly challenge the attention of every hospital man.

3. WEIGHT OF GAUZE TO BE USED —GAUZE BALANCE

In determining the weight of gauze to be used for reclamation purposes, one basic relation must be considered; viz., the gauze balance. The experimental work done by the committee shows beyond doubt that the higher counts of gauze stand the wear and tear of washing better than the low count gauze. Consequently the use of high count gauze results in a slower shrinkage of the reclaimed gauze supply. Before accepting this statement literally as indicating the use of high count gauze, attention must be given to the gauze balance or the relation between new and reclaimed gauze. It is obvious that there must be a balance between new and renovated gauze. A proper gauze balance is a point where the normal shrinkage of the reclaimed gauze supply is just balanced by the amount of new gauze put into circulation through various channels. The latter factor is pretty nearly a fixed quantity while the former is fairly easily controlled, depending very largely upon the count of gauze washed.

The gauze balance, therefore, may reasonably be considered

as an accurate index of the weight of gauze to be used. It is obvious that the factors entering into the determination of this balanced relationship cannot all be calculated in advance, so each and every hospital must work out by actual experience the value of the various component factors and by adjustment arrive at the proper gauze weight. The recommendation of the committee, therefore is briefly to use the lowest count gauze that maintains the gauze balance. The experience of the majority of the members of the committee has been that the higher counts of gauze are more satisfactory and economical. A count of 24x20 meets the requirements in most cases where we have record. However, this is no guarantee that 24x20 gauze will be satisfactory in every hospital.

4. METHOD OF RECLAMATION

The primary consideration in the method of reclaiming gauze must be that two basic requirements must be met; viz., sterility of the dressings and a certain degree of absorbency. At the same time one must keep in mind that once these requisites are secured, the method must result in as little wear as possible and that it must not pile up a large labor cost that would counterbalance any saving effected by gauze renovation. That these factors are all possible of attainment is proved by the experience of hospitals washing gauze. At the same time, there is no rigid uniformity of laundry methods. This leads us to conclude that the method of reclamation is nothing occult at all but merely the application of ordinary principles of sterilization and laundry.

Therefore, we will give no detailed method of reclamation as our recommendation, but will outline a typical process here.

The gauze is collected on the wards in heavy net bags hung in garbage cans. The bags are heavy enough to stand washing and the gauze is not removed from the bags until it reaches the gauze room. In the washer the gauze is subjected to these steps:

1. Rinsed in several changes of cold water (4-5 changes) until the water is clear.
2. Four inches of warm water—2 pounds of soda and 2 pounds of soap (powdered). Run thirty minutes.
3. Rinse through two changes of hot water.
4. Four inches of water—3 pounds of soda and 2 pounds of soap. Boiled hard for twenty minutes.
5. Rinse through three changes of boiling water.
6. Rinse through two changes of cold water.
7. Extract for fifteen minutes.

The figures given in 2 and 4 are for a medium sized washer.

Repeated bacterial tests have shown that the gauze is absolutely sterile at this point but some hospitals subject the gauze to another sterilization in the large bedding and mattress sterilizer. This is hardly necessary, however, and most hospitals omit this step. The gauze is then sent to the gauze room, slightly damp, where it is pulled out flat.

The average time required for all these processes is about an hour and a half total in the laundry. This does not mean, however, that the entire attention of a laundry man is required for this period of time. The cost of a day's supply of material used for a load of gauze is about fifty or sixty cents.

Our records show several slight variations from the typical routine. For example, one hospital soaks the gauze over night in cold water, feeling that it makes the preliminary rinsing easier. Again, some hospitals use considerable bleach in washing the gauze. This certainly results in whiter gauze but is of no other advantage. There are also slight variations in the length of time allowed for the various steps but these are of no great importance. The typical method given above secures all the essential characteristics and can be used as the basis for working out your own method.

In preparing this bulletin we have no thought of arbitrarily setting up in detail everything to be said about gauze renovation. It is a question that must be carefully studied in all its phases by the hospital executive and the decision must be made after all things have been considered. We have merely indicated some of the ways this question may be approached and have indicated some of the basic essentials. The committee feels that if the question of gauze renovation is given a fair investigation, it will prove its worth. The savings that could be effected by a nation-wide adoption of the gauze renovation idea is stupendous and certainly justifies the thoughtful consideration of every hospital man.

The committee wishes to offer all the information on gauze renovation that it has for the use of anyone interested. We will do our best to answer any questions and discuss any problems encountered.

(Signed) A. B. Denison, M. D., Chairman,
Claribelle Wheeler,
Sister Cornelia,
Sister Patricia,
Sister Amadeus,
Sister Agnes Therese,
Guy J. Clark.

CHAIRMAN MACEachern: I asked Mr. Test to speak because he was the first to start this work. We would be very glad to hear a word from you.

MR. DANIEL TEST: I would like to be excused from speaking, except to correct the statement you have just made. I believe the Massachusetts General Hospital was the first to reclaim gauze. We started soon after. I am very glad to say that in the years we have been reclaiming gauze we have saved approximately \$90,000. The apparatus that we purchased in order to make the saving cost us \$750.

DR. F. A. WASHBURN, Director of Massachusetts General Hospital, Boston, Mass.: In 1905 it was my privilege to read before this convention in Boston an article on washing gauze, entitled "The Prevention of Hospital Waste." I remember Dr. Rowe was president of the convention and he objected very much to the use of the word "waste" in connection with hospitals; he said it would make people think something might be wasted in the hospitals. My attention was called to the washing of gauze by Dr. Samuel Mixer. I remember distinctly his coming into the office where I sat with Dr. Howard and telling us that he could see no reason why we should not reclaim our used gauze, and with Dr. Howard's permission I instituted certain experiments at the Massachusetts General Hospital and worked them out, with the pathologist, Dr. Homer Wright, in close consultation. We proceeded, with various experiments in detail, to soak in cold water to get the blood out and we finally discovered that the best way to wash it was in the laundry bags. It was rinsed as has been described in the washers and then put in what we call the sterilizing washer under ten pounds pressure, which gave a temperature of 240 degrees. Dr. Wright's tests in the laboratory showed that there was no growth after this procedure; but to make doubly sure it was all sterilized again. After obtaining Dr. Howard's consent (Dr. Howard being then my chief) I brought the matter before the visiting surgeons. I am glad to say that the visiting surgeons—then consisting of Dr. Warren, Dr. Mixer, Dr. Harrington, Dr. Elliott and Dr. Arthur Cabot—unanimously agreed to try it, although they wanted it tried first in the wards and not in the surgical building. That worked all right, because it was necessary to have the new gauze go in somewhere and it seemed well to have it go in the surgical building.

At first there were certain reservations made. The only diseases the gauze from which is still tabooed are anthrax, tetanus and gas bacillus. Greasy gauze or gauze contaminated with feces has never been used. I do not think we have ever

reached the point where we have wished to use that gauze on which ointment was placed.

I remember a test which was made one time: We put a black thread in the gauze every time it came through the hands of those who stretched it after it was washed, the idea being to see how many times a given piece of gauze was reclaimed. It was reclaimed twelve or thirteen times, twelve or thirteen black threads appearing in one gauze sponge.

CHAIRMAN MACEachern: Well, ladies and gentlemen, our program this year has many outstanding features and there are two that we are having today—the report on nursing, which was considered this morning, and the report on the training of hospital executives, which we are about to consider now. These two reports are of great national interest; I am sure they come with great pleasure and comfort and interest to us all today. Now we will hear from Dr. Willard C. Rappleye, Executive Secretary of the Committee on Training of Hospital Executives.

DR. WILLIAM C. RAPPLEYE: Mr. Chairman, Ladies and Gentlemen: It is a matter of regret that Dr. Ebersol, who is chairman of this committee, does not happen to be in the country at the present time, so it is with a good deal of humility I come before you and try to present this report for general discussion.

The committee was originally appointed with the idea of suggesting a basis for the training of hospital executives. It became apparent very early in the study that the training of a hospital executive is contingent upon an understanding of the hospital function, hospital organization, and the general tendencies at the present time in hospitals. We spent about nine months in the study of contemporary hospital practice in this country, and the sources of information are indicated in the report. These sources include not only hospital executives, but groups of business men, chambers of commerce and various other groups interested in the organization, outside as well as inside the hospital, the thought being to mobilize and select those features of the general organization in the community that might apply to the technical aspects of the hospital administration. The results are necessarily theoretical; that is true always of every educational program.

This is fundamentally an attempt to formulate a basis on which training might be instituted. There is, however, no claim of original activity in the report nor for the committee; it is merely an attempt to reflect the general situation in this country and in Canada and present the opinion which is a composite of the opinions of the great group of people we were able to see and

confer with. There are certain general considerations regarding the whole thing that, for the moment, can be passed over.

It is becoming increasingly clear that curative and preventive medicine have definite identity and that the expression of the individual functions of these two major concerns in medicine are necessarily dependent upon each other; and, in turn, these expressions are closely related to broad problems of education, politics, economics and sociology—in other words, the whole aspects that enter into community life generally. We know, further, that our knowledge of disease, its diagnosis, its method of treatment, its method of prevention, is certainly very far in advance of the applications of that knowledge. There is at the same time, in response to that general feeling, a growing philosophy of community responsibility in matters of health generally, and out of it have come a great number of diversified activities of various character, all aiming to serve this great field of health. The rapid strides in medical education and nursing education and all the other phases of education for various members connected and identified with hospital activities, of course, is bringing a great group of new problems, and we have listened to the discussion of these problems in nursing only this morning. There has been emphasis, growing emphasis, on the responsibility of communities to provide facilities where people of moderate means can get the best that scientific medicine can bring them. There is the migration of medical men and nurses and others outside of medicine away from the rural communities to the cities, and of all the great problems of medicine probably the rural practice of medicine is one of the most pressing, and one from which are coming some of the dangers to general medicine and nursing practice, and it is in relation to these rather than general consideration that we started to formulate our ideas about how executives ought to be trained.

There is a great diversity of those activities; they have led to duplication, then to excessive total costs and to all sorts of neutralization of effort; made misunderstanding and confusion, and the whole thing has led to a certain false sense of accomplishment together with an enormous increase of total cost of doing the jobs as they ought to be done. Obviously all of those things call for an organization of individual responsibility, largely, of course, to obviate these inadequacies of isolated activities of various kinds. This led to the necessity of securing certain collective expressions on standards and calls for the active participation of the whole group of professional workers in a coöperative type of organization which might well mobilize these diversified activities.

In looking over the field we were quick to recognize that possibly there was some other method of handling it; but it did seem clear to the committee and to most of the people with whom we consulted that the hospital occupies the strategic position in this whole field; it represents the common ground of the public and the patient; it represents the activities of education; and it was our thought in formulating our conception of this thing that the hospital occupied pretty much the mid-position about which could be focalized and centralized the diversified activities within the community that have their bearing on a certain common ground. It was evident at once that in developing such a conception of the hospital there was a great demand, or at least a need, for the development of executives with a broad vision of service and a broad educational background. We took up, of course, the functions of hospitals, and we were anxious to study if we could the common denominator of the functions of all hospitals. We did not attempt to classify hospitals and did not attempt to go into a good many of the details of organization and management. What we were aiming at was the function, leaving the details of management and finance and various other things which might be debatable and had to be met in different ways in different communities, to be worked out from a few principles. Our ideas were logically grouped into three great classes—one of service to the patient; one of service to the professional group, and one to the community. When you talk about the community you talk about the unit of that community, which is the home, and ultimately the efficiency of the hospital has to be translated into the way it serves the homes of the community.

We took up then the second great function, which is education, and that applies to the same group—education of the patient—and it is through the patient that we establish many of the contacts in the community. The patients go out and disseminate the information in their contact with their friends. There are a great number of quite undeveloped opportunities for educating the public through the group of people constantly in the hospital, representing the groups coming in and going out. Our idea is to reach through this group certain conceptions of sound policies and practice, because it is increasingly clear that the hospital must assume more and more responsibility in the determination of standards of practice of all kinds in the community. The community looks more and more to hospitals and courts are deciding more and more that the hospital has that responsibility which cannot be avoided.

Then the great problem of research applied in a general way

to the same group, recognizing, of course, that various hospitals will emphasize various phases of this whole thing. Private sanitariums, for example, on the surface are on a somewhat different foundation from any university hospital, but fundamentally they are all pretty much the same, the difference arising largely through emphasis; and it is through these general functions that the hospital service is one of the most potential and powerful of all public health agencies in the field of preventive medicine.

We took up then the organization of the hospital, the duties and qualifications of the executive officer and his position in relation to the organization. We felt that it was very important to define, and define without equivocation. On the basis of these things we tried to formulate a plan, and it is in this that most of us are interested. Our conception of training was not to prescribe certain things students should take, nor would it be possible to prescribe the entrance requirements for this kind of position, for the obvious reason that we are training a great group for different types of work and this would take, in such a training center, a diversified type of preparation. So what we had in mind was largely the idea of setting up certain general preliminary requirements, and we put those down merely as three; first that of maturity—and we had put in a parenthetic phrase (which we removed and put in again) wherein we stated maturity was not synonymous with age. There is a certain point in it—that maturity is after all a rather important consideration for an executive. It brings with it poise, stability and decisiveness, which come largely through maturity and experience. We also had the second preliminary requirement of education, and that is defined in the report which can be studied there. We were not committed at all to the requirement of a medical degree for entrance, for the perfectly obvious reason that over 80% of the hospitals in the country are under one hundred beds, and the problem for the moment would not seem to require a medical degree. We made preparation for those with and those without medical degrees. The third preliminary requirement we had in mind was some evidence, or at least a certain amount of indication, that a person had executive ability. There is such a thing—apparently, that is more or less characteristic.

The curriculum set up includes a good many phases and activities that are possibly far-fetched; but we did not make it all inclusive, with the idea that into this course might come certain people with different types of preparation. The idea was to make if we could—to outline if we could, a symmetrical

preparation for hospital administration in its broad conception. It was our idea to bring into that course opportunity for people with various types of training to augment and enrich their experience and training, so that they might thereby be qualified in this educational sense to go forward in hospital administration. The idea was to build up a system of lectures. We provided also—in order to meet this group of people who would have different preliminary training and those who were going to take different types of positions after they got through—three grades of training, a fundamental training called the basis, constituting nine months' academic work and six months' practical experience in the practical administration of hospitals. That was considered the optimum basic training. Superimposed on that would be this intermediate training for those not able to go on to the full course, which we designated a three-year period, following the scheme of development in schools of public health, leading up, as we would hope to lead up, to a doctor's degree in administrative medicine. That in the rough is the idea we have, and the discussion will probably bring out a number of thoughts regarding it.

We have to consider, of course, the great number of hospital executives now in the field, and not for a moment was that ever out of the minds of the committee itself. The thought was that built about this training center, if one could be built in this country, would be mobilized institutions of various kinds, extension work, short courses and other parts of this larger conception of training to which these people might come to get special phases of training, to get things for which they felt the need, and go back into their community after a brief training under this central group the better for the training.

One of the difficulties with the report has been the dearth of criticism, and we are rather disappointed in it and hope very much that some of the criticisms that will be brought out relating to this report will be brought out pretty forcibly. I believe some of the criticisms have occurred to me and some have been brought in; some of them I think were very valid, and this is a matter that ought to be open to general discussion. In the first place this course is too theoretical—we admit that at once; but this committee was not designed to supervise training nor to give a course. The committee is already out of existence—has been for several months. The committee was designed to bring forward suggestions for the basis of a training, and whether or not that training is eventually going to be developed I suppose depends more on this Association than any other single group. It is altogether too brief, and we are admitting that immediately.

What we did was to make a study, which when written up took four or five hundred pages. We took the conclusions of the various chapters and wrote them down, condensed the thing from a book down to a pamphlet, and naturally had to eliminate a great many topics of discussion that we felt ought to have been included, but which were sacrificed for brevity. Moreover, we are criticised for not proposing a method of solving a great many of the problems, rural practice for example, and public health nursing in relation to physio-therapy, convalescent hospitals, tuberculosis, etc. We have been criticised because we did not propose solutions for a great many of these things. That would have diverted attention from the assignment this committee received.

The matter of medical degrees has been open to discussion. A good many would think it was essential. We are criticised on the one hand for being too theoretical and we are criticised, in this instance for being too practical, because we recognize the great field that has to be served and ought to continue to be served by people who are not necessarily physicians. More than that, we were criticised for not specifying a certain number of details; we did not say how many hours should be given to various subjects. We felt, and it was quite clearly brought to our mind, that it was not the job of this committee to designate what a university should set up within itself; the idea was to put this under university auspices, and the committee was not in a position to designate how that should be handled under a university nor were we able at any time to suggest the type of degree that ought to be given. That, again, is a matter which falls purely under the university. We were criticised further for having the basic course too short, recommending only fifteen months for this basic term. Some of our friends criticised us most severely because we did not bring in anything that was radical or new. That was not the intent of the report; we were attempting to reflect certain tendencies in the hospital field and I think the report would have defeated its own purpose if it had produced something that was radical or new. This has got to be a matter of evolution and not revolution. Further, we were criticised for not putting this idea of hospital administration on a hotel basis. Many men felt that this was purely business and we ought to run the thing as a hotel is managed. It has been suggested that we should make the training center such as is now established for hotel managers. I do not think that needed much of an answer. There was just a moment of debate about it.

Some felt that we should have defined the position of hospital executive under the clinical staff. This is prevalent in

various places. Some people felt that being a medical institution it should be brought under complete medical control. That was answered very easily by a certain number of the men on the Board of Trustees of the hospitals. In one instance we were criticised for being too comprehensive on the theory that we were developing a superlative type of person. I do not think we had any idea that any one person could master all the subjects suggested in this basic training. What we aimed to do was to mobilize certain opportunities under a course of this general character which would be available for those preparing for administrative medicine, which may include a great many things and is not necessarily limited to hospital administration. They felt, many of them, that we were proposing a great deal of unnecessary work and would aim to develop a type of person that would be superlative to anything really needed.

Of course, many people thought that executives never could be trained, and we rather avoided the debate on that academic question because we tried to get our course not as a training course but as a group of opportunities, the mobilization of facilities that would bring opportunities to people with a proper training and a proper vision of things. We did not specify the number of training centers that ought to be in the country; that, again, was a matter some of our people felt should have been done. It cannot be answered altogether by a committee that is dealing with some of these theoretical considerations, but one would undoubtedly have to be guided by the general demand for this type of person who would be trained to meet these problems, and that would be determined by the number of positions open in the country. It might be a fair guess to say that five would be enough, two in the East, one in the West, one in the South and one in the far West; but I do not suppose there would ever be need for over five in the entire country, just as there is not need apparently for a great many big schools of public health.

There was a group of people who felt also that we had the wrong conception of the hospital, that the hospital ought not to be the center about which would be centralized these activities in the community; they felt that it should be an institution, and remain such, to which patients would be sent and from which they would be received; in other words, that the management of the health program should come from the outside through a lay board and principally under a director who would not necessarily have any medical training or any executive training in these problems of medicine. On the other hand, it is quite clear that success in the public health field is largely dependent upon the securing of the active support of the medical profession as

such, and if this is the common ground on which the doctor and the nurse and the social worker and all those other groups of people may meet, and in which each meet the public, it seemed logical that a proper amplification of the conception of that hospital as a community center was a far better solution than to propose a purely artificial type of control from the outside which, on the face of things, probably never could be put over. Now as to the result—it has done one thing that was not attempted: It apparently has attracted and centralized a certain amount of attention on this problem and the necessity (if we are going forward with a comprehensive public health program) of training a group of people to go forward in this type of work. So aside from crystallizing opinion on it there has come out of it a clear realization of the mind of the entire community and the necessity, apparently, of getting some institute in this country of some form in which can be worked out a great many of the problems of the inter-relationships of these various groups working within the hospital.

There are many problems fundamental to organization, to bed distribution, hospital needs, types of organizations and the relationship to the community. A great many of those factors have never been really seriously studied. We have a great body of opinion regarding these things; but it is necessary sooner or later before this whole program can go very far that this type of information, and sound information, become available. The whole thought in presenting the thing was to get if we could a conception of what a hospital ought to be, define the general type of function of such an institution, and, of equal or greater importance, to secure the proper kind of students early in the development of such a training center. The thought is to mobilize these opportunities for a group of people with the proper qualification, and about this must develop a great many of the more strictly hospital problems.

COLONEL WINFORD H. SMITH, Johns Hopkins Hospital, Baltimore: In talking with Mr. Rappleye yesterday afternoon I remarked that I thought it would possibly be better if I said anything to say something by way of criticism, and he agreed with me; and now he has forestalled me by thinking of everything that could possibly be said in criticism and answering it himself.

The report of this committee is what we would expect from the deliberations of a group of individuals such as compose this committee. It is, in a way, a very remarkable report and a very timely one. I congratulate the committee on the scope of its report and the definition of the future function of the hospital

which it has put forth so clearly. It has presented a picture of organized medical resources which is more or less ideal as compared to anything which we have been able to develop in the past. However, the committee report needs no compliments from me, and while Dr. Rappleye has stolen much of my thunder I shall, if I may, for a moment simply think out loud concerning certain phases of the situation as they appear to me.

I remember very well the meeting held in New York, composed of some one hundred or more individuals to discuss the need of better training for hospital executives, which meeting resulted in the appointment of the committee which makes this report; and I think that anyone who listened to the opinions expressed, not alone by the hospital executives but by physicians, surgeons, laymen, deans of medical schools and other representatives of universities, would have been very much impressed. Indeed, many of us came away from that meeting much encouraged at the evidence of an increasing appreciation of the value of the hospital executive. Nevertheless there were pointed out at that meeting certain very distinct difficulties in the way of an actual realization of such an ideal as we are discussing. I think the way the committee has approached the problem, by creating a broader field of activity for the hospital executive, is, in a sense, an admission of the criticism which has often been made, namely, that in order to attract the right type of men and women in larger numbers and with better training to the field, there must be a broader field of usefulness. Now that, in itself, would do much if it could be accomplished. What stands in the way?

In the first place, there is a distinct opposition more or less active on the part of the medical profession to organized community activities which include the handling of community medical problems by organizations rather than by the individual. In the next place, there has been and is still a distinct lack of interest on the part of the profession in executive work as a career. A meeting held in Chicago two years ago attended by deans of medical schools offered a good opportunity to express an opinion on this subject, and I took occasion to point out that it is a very curious thing that in the organization of the hospital, while members of the staff see and tolerate indifferent and poor work being done by their colleagues in the professional line without a murmur, the one man who falls under no ethical rule is the hospital executive, and they may all take a whack at him and do their worst or their best to discredit him. It is a curious condition, which has not tended to stimulate an interest in hospital administration as a career.

Then another difficulty in the execution of such a program

as this is that, given a center where such men can be trained, will we get the men or women to train? We cannot get them now except with great difficulty, although in many places we are prepared to offer a fair salary and living for a period of apprenticeship in acquiring a training in hospital administration. The answer might be that the present system is poor, and that if you improve the system it will be more attractive. I have my doubts that it will prove more attractive, if we merely offer the opportunity to take a course in administration, even under university auspices, and at the expense of the student who has already expended much time and money in acquiring the education which qualifies him to enter upon this course. Public health organizations have experienced this same difficulty of attracting the best type of men and women, even with the broad field of public health activity and the many lines and branches into which men may enter. Why? Because up to the present time there has been little safety in public health work. At the present time tenure of office is secure only in the Federal Health Service and that of the International Health Board. In municipal and state health work tenure of office is more or less indefinite and insecure, subject to the changes of political administrations.

It seems to me that these factors indicate some of the difficulties which may be expected in getting the right material for training as hospital executives. We shall not get the best material until there is a proper recognition from the profession and trustees and the community that hospital administration is of essential value to the general working out of the health problems of the community. I remember well that in the discussion brought out in New York Dr. Edsall, the Dean of Harvard Medical School, spoke very forcefully, saying that he had only realized recently that they had been overlooking a very important factor in their whole problem, and that was that the executive, the coördinator if you please, in the teaching institutions particularly, is just as important for the success of the various activities of the school and hospital as any other member of the faculty. Until we get a more general recognition of that fact we are going to find it difficult to attract the best men and women, and I dwell upon this because I think it is important that that point be emphasized and that we keep driving it home until proper recognition is accorded the splendid work which is being done, not by a few, but by the rank and file of those who are keeping going the administrative machinery of the hospitals throughout the country. Furthermore, medical teachers must include hospital

administration among the desirable and honorable careers which they bring to the attention of their students.

Dr. Rappleye spoke of the fact that the committee has made no recommendations as to just where, except in a university, such centers should be established. I have one thought on that which I have expressed before, namely, that to offer merely a course in administration at the present time and with the recognition that is accorded the pure administrator will not yield the type of men that we want, nor in sufficient numbers, and that our best hope for success in the establishment of such a center would be its connection not only with a university, but a university in which there is a well organized school of public health, and that this work could be carried on in connection with that school. On the one hand, those receiving training in public health administration would be better off if they knew a little something of the principles of hospital organization and hospital administration; and, on the other hand, those receiving training in or intending to specialize in hospital administration would have a much broader background if they had also a knowledge of the problems of the public health administrator.

I must confess to a little feeling of disappointment in this report—possibly I expected too much. The report is excellent in the enunciation of general principles, but I would just like to leave one more thought with you, and that is that the millennium is not at hand, and in the meantime we have several thousand hospitals throughout the country and a general need of well-trained executives. Those of the rank and file cannot possibly measure up to the requirements for such training as is outlined and must receive their training in other ways, possibly in time by means of extension courses in connection with such training centers. Even if this super-leadership is ultimately developed from this center, we will always need the same classes of workers which we have now: medical, nursing and lay administrators. The more the development of the hospital as a health center, the more the activities of the director are spread out over the larger units of service to the community, the more will the trained lay executive and nurse executive be required to supplement his organization.

I sincerely hope that this report will make such an impression that centers for such training will be established. It has been found desirable to establish fellowships for the encouragement and aid to those who desire to enter the scientific branches, the laboratory branches and other medical fields. I cannot help but feel that it might be well, at least for a time, until such centers are well recognized and are producing the proper output, to

create fellowships which might be available over a period of training when there would be no income but all outgo, to assist promising candidates, laymen, nurses and medical men to bridge over a period during which they might acquire business experience, a knowledge of the hotel end or whatever line they were deficient in, in order to enable them to qualify as executives. Something of this sort would be a very excellent supplement to the admirable plan for training leaders which has been presented by the committee.

CHAIRMAN MACEachern: Ladies and Gentlemen: With your permission I am going to depart a little from the program as named, for two items. We have with us today Mr. Embree, secretary of the Rockefeller Foundation, who has returned from the Orient. He has to leave in a few minutes and I am sure we would all like to have a few words from him.

MR. EDWIN R. EMBREE: Secretary of the Rockefeller Foundation: I have nothing to contribute to this section unless it be just a report of some conditions which I found in the Orient which I think are particularly interesting to persons responsible for hospital development.

In China in the last two years modern medicine, western medicine, is just beginning to make headway. This whole great people, 400,000,000 of them, are just beginning to understand western medicine in our sense of the word and the interesting thing is that the appreciation of the value of medicine, the appreciation of the possibilities of disease control, has come to that country almost entirely through hospitals. Throughout the length and breadth of that land are mission hospitals established by the various Protestant boards of missions and by the various Catholic orders. These hospitals have been very under staffed, have been under financed; they have had one or two men only for their entire staff; they have had very inadequate facilities in every way; they have suffered every possible handicap, and yet it is due almost entirely to these institutions, poor and inadequate as they have been, that this great country is beginning now, in a way, to appreciate the importance of western medicine and to put into practice the means of controlling disease. It seems to me rather heartening to those of us who are specially interested in hospital work, and to me I must confess it gave an added sense of the importance of the hospital as a community and as a public health institution. Medical education, public health programs and the whole paraphernalia we are so familiar with in this country is coming more and more into China; but it is fair to say that the whole background of appreciation throughout the villages and provinces was laid by the hospital.

SECRETARY WARNER: It seems proper that the action of your trustees on this report be read and reported here for your information, for your approval, and for your criticism. The trustees of the Association were greatly interested in this committee and in this study; it was so vital a problem to hospitals and to the future hospital field and industry of this country that it seemed of prime importance. When the report appeared the trustees individually gave it careful consideration, in preparation for the consideration of it at the meeting which was to come shortly. Each, therefore, came to the meeting prepared to express their opinion of this report. It was discussed in the meeting rather at length and at the close of this discussion the following resolution was passed and appears on the record:

"Resolved, That the Trustees of the American Hospital Association do hereby express unqualified approval of the report of the special committee appointed by the Rockefeller Foundation for the study of the training of hospital superintendents, both as to principles set forth and statements made, and also as to the suggestions for future procedure and action."

The breadth of the report, the strength of it and the importance of it made the trustees feel that every particle of strength that could be put behind this movement should be placed there most effectively. It seemed too valuable a report to be lost in discussion, and that action upon it should follow promptly. With this idea the following resolution was passed:

"Resolved, That the Trustees do hereby urge upon the Rockefeller Foundation and other institutions which can make practical contribution thereto, consideration of the suggestions in this report as to future action; that the actual training of hospital superintendents in the required numbers and along the lines suggested by the report may be accomplished at the earliest possible date."

On account of the fact that there had been in the past considerable discussion among the trustees and others of the need for the formulation of a clear statement of the function of the hospital superintendent and his relation to the trustees of the hospital, it was considered from this standpoint, and the decision was that this report answered the past questions, queries and hopes satisfactorily. Therefore, this resolution was passed:

"Resolved, That the Executive Secretary be and hereby is instructed to discontinue all negotiations and actions leading to the development of a program for the study of the organizations of the hospitals down to and including the superintendents as ordered by the trustees September 16, 1921; and be it known that the cause for this action is the recognition of the fact that the

report of the committee appointed by the Rockefeller Foundation to study the training of the hospital superintendent sets forth so accurately and concisely the fundamentals of the proper organization of the Board of Trustees and the proper function of the superintendent, that the development of other statements in this matter is deemed unnecessary."

If these resolutions are not approved by the Association they should be corrected, but these are official unless changed here.

CHAIRMAN MACEachern: You have heard the report of the secretary, and the resolutions. What is your wish?

A MEMBER: I move that the question of approval or disapproval be laid on the table until we have an opportunity to discuss the report.

CHAIRMAN MACEachern: With the consent of the meeting we will leave the disposal of the minutes and the resolutions until the discussion is finished, and the next speaker will be Dr. Washburn of the Massachusetts General Hospital.

DR. FREDERICK A. WASHBURN, Director of Massachusetts General Hospital, Boston, Mass.: Mr. Chairman, Ladies and Gentlemen: Before continuing discussion I would like to call the secretary's attention to the wording of the resolution drafted by the trustees. As I understood it, it said a committee appointed by the Rockefeller Foundation. I think the Rockefeller Foundation would not wish it to appear that way, because the committee was not appointed by the Rockefeller Foundation. The Rockefeller Foundation, having the means, invited, as Dr. Smith has just told you, some hundred people or more, representing educators, business men, nurses, hospital administrators and others, into a conference and the committee was selected by that body and not by the Rockefeller Foundation. I think that is an important distinction which the Rockefeller Foundation itself would wish to make. Don't you think so, Dr. Rappleye?

DR. RAPPLEYE: Yes, sir.

DR. WASHBURN: After the kind words of Dr. Smith about the committee I hasten to state that I was a member of the committee. Any criticisms I had to make were made to Dr. Rappleye, who wrote the report before the report was issued, and I have therefore no criticisms to make now. Inasmuch as the credit for the work is almost entirely Dr. Rappleye's, I can say that the report does meet with my most hearty approval.

Why is it that we do not get, that we have so much difficulty in getting into hospital administration, the class of people that we want, both men and women? Dr. Smith says that in

order to get as many as we need of the best class it is necessary to broaden the field. I do not think so. I believe that in the position of hospital administrator, hospital director, you are doing good by wholesale, because of the fact that you have the opportunity to make it possible for all these groups of people in your hospital to work to the best advantage. It lies in your hands, the opportunity to coöperate, to furnish the laboratory facilities and the other facilities necessary for successful work by all the groups, so you have the opportunity to do good by wholesale where the doctor who treats the individual patient only does good by retail. It is a big and responsible opportunity as it stands today.

I do not for a moment suggest that the field is not going to broaden; I thoroughly believe it is; in fact, all we have to do is to look back through the last twenty years and see how the opportunities have changed in order that we may believe that the job is going to be bigger and bigger in the future. I spoke a few moments ago, when we were speaking of gauze reclamation, of a meeting of this Association in Boston in the year 1905. That was the sixth or seventh meeting; it was held in the parlor of the Hotel Vendome. I should think there were thirty or forty people present, and it was nearly all the members of the society at that time. The topics discussed were entirely what has been referred to as the hotel end of the business. What about the laundry? The best methods in the kitchen? The care of hospital floors, and such housekeeping matters as that; questions of buying supplies, the best kind of supplies? That constituted the whole field of interest in those meetings. Now how has it broadened? Look at your program today; I do not know how many pages we have here, how many sections and sub-sections; we have sections on Administration, on Social Service, on Nursing, on Dispensaries, and dozens of others. Now that is the development of the field of discussion. I remember one of the members—who has since passed out of hospital work, one of the older men, to whom I looked up in those days—saying in Dr. Howard's office after the meeting of that convention that he did not think that we should have meetings oftener than once in two years, and perhaps only once in five years, because we had used up all the topics of value to discuss. There are new branches of work in our field every day. The outline of its possible development Dr. Rappleye has put in this report. That may not be just the way we grow, but we are going to grow year by year as we have grown in the last twenty years; there is not any doubt in my mind about that.

I had occasion, however, only a few weeks ago, a few

months ago, to try to get a man for my first assistant; Dr. Faxon was going to leave me to go to Rochester and I wanted if possible to get a man who was a Massachusetts General Hospital graduate. After some years of experience I had discovered that a man who was a graduate of our own hospital had a very much easier row to hoe in an administrative position than one who was not a graduate. Could I interest any of the young graduates of the hospital or any of the forty odd men in the hospital at that moment in the position? I could not. Why couldn't I? The job is big enough for anybody, Lord knows. I think the reason is largely because we do not catch them young enough. If our medical schools would place the emphasis upon hospital administration as a career which that career deserves we would begin to solve the difficulties; but they do not do it. They have not had the interest in the past. It looks to me as though some of them were beginning to show an interest in it. We had before this only a few sporadic attempts at a very limited amount of instruction in hospital administration. One or two hospitals had given short courses to nurse graduates in the attempt to give them a little practical experience so that all their mistakes, all that they did, would not be at the expense of the jobs which they had as superintendents of small hospitals. That was good as far as it went. In Columbia, Teacher's College had made perhaps a more scientific attempt than this; its work was more theoretical and ours was more practical. Now that laboratory side of it must be continued, of course, and Dr. Rappleye calls for it in connection with the theoretical training given in universities. In conclusion I would like to say I am firmly convinced that the time has come, that this field has become so important that the country cannot afford to wait, and a start must be made in some educational center. I believe that there is enough force in this report and enough interest throughout the country to induce either some university to finance this thing or to induce some rich foundation to furnish the money to some university and hospital, some teaching and hospital center, so that a beginning can be made. This may be in one place at first, and if it is a success, in five places more or less as Dr. Rappleye says.

MR. DANIEL TEST, Superintendent of Pennsylvania Hospital, Philadelphia: I am permitted to be at Atlantic City at this time only on condition that I should take no part in these meetings and I am only responding to the call of my name at this time to try to prove to you that I am not a slacker.. I feel, however, that any attempt of mine to discuss the committee's report in detail would dissipate the value of what has already been said, so that I will only briefly touch two points which have already been referred to.

The report suggested a fifteen months' course of training and then proceeds to lay out a course of study which the average man and woman could scarcely cover in a lifetime. I at first thought that this was little short of ridiculous and doubtless some of the rest of you at first had the same feeling. As I have thought more about the matter, however, it seems to me the committee was wise in putting the thing before us just as it has done. The report gives a new idea of the bigness, the importance and the responsibility of our work and we need this new idea to stimulate us to greater efforts. The report gives a new vision of the opportunities, and perhaps the demands, of the future, and we need this new vision. It is a splendid foundation on which to start and the processes of evolution which have already been referred to will eliminate that which is not practicable. So I wish to congratulate the committee on the report. It is a splendid piece of work and the members of this Association, collectively and individually, should get behind the committee and help put the thing in practice. It has been the experience in all educational movements that the number of students is not large in the beginning and this should not deter us.

The next matter to which I would refer is the question of the qualities which are desirable for candidates for hospital administrators. Dr. Rappleye has already spoken of two or three and I would like to add a few others. There has been much said from time to time on this subject and it seems to me important.

First, I would say CHARACTER. The character of your institution may depend more than you think on the character of your executive.

Second, MATURITY, which the committee has already referred to and which is very desirable whatever the age may be.

Third, TEMPERAMENT. It makes all the difference in the world whether your executive has a sunny disposition or is an old grouch.

Fourth, NATIVE ADMINISTRATIVE OR EXECUTIVE ABILITY. To this we will all agree.

Fifth, EDUCATION, if you please. I am glad the committee has emphasized this, because some of us who did not have the opportunity for an education have sadly realized the handicap we were under because we were not able to start business with the trained mind which an education gives or should give.

Last, but not least, that very rare quality which I like to call HORSE SENSE. The Almighty did not make enough of

this to go around and that is the reason so many of us have so little of it.

If you will take CHARACTER, MATURITY, TEMPERAMENT, EXECUTIVE ABILITY, EDUCATION and COMMON SENSE and give the person having these qualities the training proposed, I don't care whether he is a doctor or whether he is a layman you are going to very greatly raise the standard of hospital management.

DR. JOHN M. DODSON, Rush Medical College, Chicago: Mr. Chairman, I submit it is hardly fair to ask me for remarks on a report I have never seen, for I have not had the good fortune to read a copy of this report. I came in a little bit late. I can gather, however, from what I have heard and from what I heard Dr. Rappleye say before, something of the nature of this report. I shall address the few remarks I have to make solely to the practical solution of this problem. To me it is not a difficult thing at all. I am quite certain there is, in one university, a medical school with a well equipped and well manned hospital that could undertake this task tomorrow, with a little financial help. I think the main difficulty will be, as Dr. Washburn has intimated, in securing students, men of the proper sort. Hospital executives will command adequate, just compensation when they are really worth that compensation. For men suitably trained for such work, hospital officials are ready now to make the career attractive financially and otherwise. I do think, however, as has been suggested, that it will be a great advantage, perhaps indispensable, that at first there should be some fellowships—some arrangement by which inducements are offered to young men or young women who show a special fitness for this kind of work. I think it is true, as Dr. Washburn has said, that medical schools in general have been neglectful of certain phases of medical activity to which they must give from now on much greater attention; and it is not strange that that should be so. Medical science has been growing with such marvelous rapidity in the last twenty years that it has been almost impossible to keep up with it, and as each new specialty has developed and broadened out we have tried to inject some of it into an already overcrowded curriculum. The wonder to me is that any of the medical students have lived through it all. We must reorganize, in my judgment, the whole scheme of medical education. First, more attention must be given, as I said yesterday, to the preventive side of medicine. There is no question at all but that, as a group of medical people, nurses, physicians, social service workers et al, our possibilities for usefulness are enormously greater in the line of prevention than in the line of cure. And, secondly,

we must have regard not only to the preparation of the general practitioner, the family doctor—although he is, of course, the main thing—but we must fit men for the other avenues of activity, and one of the most important of these is the hospital executive. Hospitals have been springing up so rapidly in this country in the last few years that we have not had the sort of people to man them properly. If we can make the career of a hospital executive as attractive as this report indicates, if we can educate the public, as I think we can, to offer a proper compensation, I feel sure, speaking from the standpoint of one engaged in medical education, that we shall have no difficulty at all in supplying the five or six centers which are necessary to fit men for this line of work.

MR. J. R. MAYS, superintendent Garfield Memorial Hospital, Washington, D. C.: I wish to heartily congratulate the committee, from my humble viewpoint, on their report. However, I must say there is some little misunderstanding on my part. Frequently there has been reference to more desirable material. I do not like that phrase put in that way; I think that that is a slight reflection upon the present hospital executives. We need the best material possible, and I believe we have some mighty good material at the present time. Just how we will go about selecting people and attracting proper men and women, either laymen or doctors, is a question to me that is a most important question. Reference was made by the gentleman from the Massachusetts General to his having to attract medical students. In reply to that, I would like to refer to yesterday's discussion of the dearth of internes in the hospital at the present time. If you cannot get a medical student to put in sufficient time as an interne, it seems hopeless to get him to educate himself as a hospital executive.

MR. HOWARD, of New York: I think it is an exceedingly statesmanlike report, but I think it is about 100 years ahead of the times. The report concerns itself, you will notice, primarily with the 60% of hospitals which have a hundred beds or less, in 70% of the communities which have less than 50,000 inhabitants. Then it talks of 10% of hospitals for nervous and mental diseases; that leaves about 10% of hospitals with over 500 beds. For these large hospitals in the big cities, so far as I can see, this report gives no provision for training, and I think about 40% of what they do give to the training of other hospitals would be useless except as general education for the executive in a big hospital. I think that there is great need for training, as has already been said here today, for the executives in the city hospital and I see no provision for it in this report. For

the 80% of hospitals under 100 beds, the report enlarges the conception of a hospital to make the whole field of health service, both in the home and in the hospital throughout the community, the object, the function, of the hospital, and makes the unit of operation not the institution but the community itself. On this I want to make two or three comments.

In the first place we have got to educate not only the hospital executive, but we have got to educate the hospital trustees. If you give any board under the sun—I do not care whether it is in hospital work or any other social field—a building to look after, that building is going to absorb most of the money, most of the time and most of the interest of that board of trustees; and if you want them to give their minds to what is outside the building you are going to have a hard time to do it; the trustees have to be educated as well as the executives. An institution also absorbs the time of the executive. Furthermore, it is my belief that the function of an executive in an institution is so different, requires such a different type of mind from the function of an individual required to organize a community for public health service of any kind, that it is impossible, or that such a combination is rarely found in any one individual, and I doubt very much if it will be possible to find them. Furthermore, if the proposition only concerned itself with the care of the sick in the homes, as well as in the hospitals, I think that it would be better to have the control outside the hospital and not inside the hospital, although that point has already been commented upon by the secretary of this committee. Finally we are told that 56% of all the counties in this country have no hospitals whatever. May I ask you what is going to happen to the public health work in those counties? I think what we have got to have in this country, I do not care what you call it, is a health association of some sort, as we have in some counties now, and I think we ought to have them in all counties, whether there are hospitals there or not, and for my part I believe they should be not under the control of the hospitals even in the communities or counties or towns where there are hospitals, but that the control should be outside the hospitals and not inside.

CHAIRMAN MACEachern: I would like to say that since this is not a general meeting, but only a section meeting, we will have to postpone the consideration of the minutes and the resolutions of the trustees until tomorrow. Dr. Warner wished me to announce to you that this will come up tomorrow morning. If Dr. Rappleye has nothing to say, we will consider the meeting adjourned for this afternoon.

GENERAL SESSION.

September 27, 8:30 P. M.—President O'Hanlon in the Chair.

PRESIDENT O'HANLON: I will ask Mr. Borden to present the report of the Committee on Constitution and Rules.

MR. RICHARD P. BORDEN, Union Hospital, Fall River, Mass.: As a result of experience the trustees have suggested three amendments to the Constitution and By-laws which, however, are not of very great importance. In order that the canvass for officers shall be more representative the Board of Trustees suggest that the number of the Nominating Committee, which is now three, shall be increased to five, in order that what may be called the natural geographical sections of the country may be represented, and so it is recommended that the following amendment be adopted:

Section I, Article IV, of the Constitution to be amended so that it shall read as follows:

The President shall immediately upon assuming office appoint the following Standing Committees: A Committee on Constitution and Rules, a Legislative Committee, a Membership Committee—all of three members each; a Nominating Committee of five members; a Committee on Out-Patient Work of three members, each of which shall hold office for three years from the date of appointment. This last Committee shall undertake such study or activity as may advance progress of out-patient service and shall report to the Association.

Practically the only change is the increase of the Nominating Committee from three to five members.

During the year a very interesting and active man in hospital work sought membership in the Association as an active member, but he did not come within the rules of the Association because he was not a trustee or superintendent or a member of the medical staff of a hospital, although he was an executive officer of a very important state hospital department and directly concerned not only with one hospital but with several hospitals. In order to overcome such difficulty and like difficulties which might be discovered in the future, the Board of Trustees suggests an amendment which is as follows:

Amend the first paragraph of Article III, Section I, Clause B of the Constitution so that it should read as follows:

Active personal members shall be those who, however they may be designated, are at the time of their election trustees or superintendents or assistant

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superintendents of hospitals, or members of medical staffs of hospitals, or executive officers of any organization having as its primary purpose the development of hospitals for general public service, the scope and nature of whose work is approved by the Board of Trustees. Any person once an active personal member may continue such membership so long as the rules of the Association are conformed with.

The only change is that being in the words "or who are executive officers of any organization having as its primary purpose the development of hospitals for general public service, the scope and nature of whose work is approved by the Board of Trustees." It was very difficult to get language that would exactly fit the possible requirements of the situation and so the language was made broad, with the restriction and limitation, however, that the organization, whatever it might be, must be such as to have the scope of its work approved by the Board of Trustees.

It was also found during the year that the actual mechanical cost of the proceedings and of bulletins that are issued to members of the Association exceeded the fee of \$2.00, which is all that is required from associate members at the present time. It was thought desirable that members should pay at least a sufficient amount to cover the cost of printing, postage, etc. The associate members get all the benefits of the contributions to the maintenance of the office, the work of committees, the convention and all other enterprises of the Association, and it seemed that they ought to be willing to pay for the actual cost of delivering the information to them. So it was suggested that the annual dues of associate members be increased from \$2.00 per annum to \$3.00 per annum, and this would be the necessary action.

Voted: That the dues of associate personal members be increased from \$2.00 to \$3.00 for each calendar year, beginning in the year 1923, and that Article V, Section II, of the By-laws be amended in accordance herewith.

There will have to be provision made for the associate members in geographical sections, but that does not require an amendment to the Constitution and can be made through arrangement between the Board of Trustees and the geographical section when the opportunity arises. Those are the only three amendments to the Constitution that have been suggested and if there are any questions in regard to any of them I shall be glad to endeavor to answer them.

PRESIDENT O'HANLON: You understand that no action is to be taken tonight on these proposed amendments. They are read for your information and consideration. The vote on them will be taken tomorrow. Are there any questions anyone cares to ask Mr. Borden relating to the amendments?

PRESIDENT O'HANLON: I will ask Dr. Richardson, Chairman of the Nominating Committee, to present the report of the Committee.

DR. RICHARDSON: Mr. President, and Members of the Association: I do not need to tell you that the duties of a Nominating Committee are easy, because they are not. We have considered the situation very carefully and we beg to present the following nominations

REPORT OF THE NOMINATING COMMITTEE:

President-Elect—Dr. Willis G. Nealley, Superintendent Brooklyn Hospital, Brooklyn, N. Y.

First Vice-President—Dr. A. K. Haywood, Superintendent Montreal General Hospital, Montreal, Quebec.

Second Vice-President—Miss Charlotte A. Aikens, 138 Parkhurst Place, Detroit, Mich.

Third Vice-President—Dr. R. G. Brodrick, Director of Alameda County Hospitals, San Leandro, Cal.

Treasurer—Dr. Robert J. Wilson, Director of Hospitals, Department of Health, New York.

Trustee—Rev. Maurice F. Griffin, Trustee St. Elizabeth's Hospital, Youngstown, Ohio.

Trustee—Dr. A. C. Bachmeyer, Superintendent Cincinnati General Hospital, Cincinnati, Ohio.

A MEMBER: I would like to move that the Committee's report be accepted and approved and that further nominations be closed.

MR. C. J. CUMMINGS, of Tacoma, Washington (Tacoma General Hospital): Before the motion is seconded, let me say that it is hardly fair to have the nominations closed. I would like to say just one word. I came a long way to this convention and believe I am the only delegate from the Pacific Coast (Washington, Oregon and California). This is hardly believable. It gives me great pleasure at this time to nominate a man who, for the past two years has been your First Vice-President; a man who is active in hospital work; hospital standardization with the American College of Surgeons, both in United States and Canada; a man who is always willing to serve. I say this because we know him in the Northwest. We need someone in that section of the country to help the hospitals at this time. I nominate for President-Elect Dr. M. T. MacEachern.

PRESIDENT O'HANLON: In answer to the question Mr. Cummings has raised, the motion was not seconded, so it does not have to be considered, but I would say that according to the

new form of election nominations may be made either from the floor or you may place upon the ballot that you deposit in the ballot box the name of any person for whom you care to vote, whether or not his or her name is presented to the convention. You have heard the report of the Nominating Committee and also heard the nomination by Mr. Cummings. Mr. Cummings' nomination has not been seconded.

(Nomination of Dr. MacEachern seconded.)

PRESIDENT O'HANLON: For the benefit of those who are leaving tonight or very early tomorrow, the ballot box will be open in the office of the registrar from 10 to 10:30 tonight. For those who are staying over tomorrow, the ballot box will be open from 11:30 until 2 o'clock. Dr. Warner insists that the ballot box be kept open all day. I think you can do your balloting in three hours. Having a little sympathy for the persons I am about to ask to officiate as tellers, we will compromise on from 9 o'clock in the morning till 2 in the afternoon. I will ask Miss Flowers, of the Wesley Hospital, Toronto; Mr. Baun, of Lakeview, Danville, and Dr. Spellman of the Jouro Infirmary, New Orleans, La., to act as tellers. It will be their duty to be present tonight from 10 to 10:30, and tomorrow from 9 to 2, at the voting booth.

(The meeting then resolved itself into the Social Service Section.)

SOCIAL SERVICE SECTION

September 27th, 8:30 p. m.

CHAIRMAN CANNON: There is really only one reason for my presiding at this meeting and that is that Miss Wadley asked me to do it. We in New York are in the habit of doing exactly what Miss Wadley suggests, so when she asked me to undertake the introduction of speakers for her, it was psychologically impossible for me to refuse her. Therefore, I am acting as her spokesman this evening, she being Chairman of the Social Service Section.

The first topic is, "What Social Service in Its Hospitals Means to a Community." We were asked to have this subject presented by someone who is closely in touch with the needs of a community and is, therefore, in a very good position to know what various forms of service may mean to the people of a community.

WHAT SOCIAL SERVICE IN ITS HOSPITALS MEANS TO A COMMUNITY

MR. WILLIAM H. MATTHEWS, Director of Family Welfare Department of the New York Association for Improving the Condition of the Poor:

In spite of a very honest conviction that they might easily have made a better choice, I could not but say yes, when a group of hospital social service workers of New York City asked me to come here and take part in your program. And this, because, in my own work over the last ten years the hospital social service workers of New York have been a constant help to me and members of my staff. In spite of this misgiving I have as to their choice, I am glad to be here, because to anyone who, day after day, sees so much of the distress and anguish that comes to people by reason of sickness befalling them, it must bring a thrill of heart, a renewed inspiration to carry on in his own work, when he mingles with a group of people whose purpose it is, whose work it is, to cut down that distress and that anguish every day. Now naturally my first interest as I think of this subject is in that large group of people who are constantly perilously near that line which divides people from being self-supporting and in want.

I do not think the community realizes enough, I do not think social workers realize enough—especially some of those who sit in the high places and look down from the top—what sickness, even for a day, sometimes means to a large group of our wage earners. It is undeniably true that to that group of workers who can least stand it, loss of work through sickness means loss of pay, and that loss of pay even for a day means the difference to them of just enough and not quite enough to buy the necessities of life. This is not theory. Anyone who reads over a large number of case records, as I have done time after time, particularly if they have been kept by people whose eyes were alert for health conditions in families, knows that fact to be a tragic truth, and in my own experience in relief work I have always found sickness to be the leading recruiting sergeant for relief agencies. So it is for that group of people I am going to plead principally tonight, to ask you to see that your hospital social service work shall be done in such a way that they will be quickly cured of their sickness and given back to their families and communities in sound health. Am I not right in this?

About two months ago I had occasion to take one of my own family into a hospital for an operation. I interviewed the surgeon. I engaged nurses; I engaged a room, and I went home without worry, knowing that everything was going to be done for my boy that could be done, and as the operation was not a particularly dangerous one I had no great concern.

But one day when I was visiting the hospital I stepped into one of the three clinics, as I often do, and having ten minutes to wait I sat down on one of the benches to see what was going on. It did not make a particle of difference to me when I left my boy in the hospital that night whether there was any hospital social service in that hospital or not; I did not need it for him. In that clinic I saw this: a mother came in with a little baby, its eyes and face swollen from much crying—hers also—and the assistant to the doctor who was in the clinic that morning gave one quick examination, not more than thirty seconds, and made the same diagnosis for that baby as had been made for my boy after a fifteen minutes' careful examination, and said: "Your baby needs an operation; take it downstairs." A father came in with a boy who, if I gathered rightly from the conversation, had recently been discharged from the hospital after an operation, and the doctor's assistant said "Why do you bring this boy here this morning? We have not time for him. He is all right. Why bring him back this morning?" The father did not need to bring the boy back in all probab-

ity, but he brought him back for the same reason that, three or four days later, I took my boy back before I let him go back to camp, to be doubly assured as to his condition.

Now it would have made a tremendous difference in that clinic that morning if there had been a hospital social worker to tell that mother, to tell that father, and several others, just what some things meant. You cannot do that, you cannot give the kind of service that I want to see given to this group of people I am talking about, when people have to be rushed through the clinic in almost New York subway turnstile fashion. I am not blaming those doctors there that morning; it was the system; you cannot do it even if you have hospital social service work connected with the clinics, and without it—well, I hope we are never going to go back to that.

Now I want to leave generalities for the rest of my twenty minutes and talk about people, the people who, every day, throng in and out of your clinics, people that I have actually known, and what happened to them. One day last winter Tom Kennedy walked into a tuberculosis clinic on the west side of New York. Tom Kennedy was a teamster, one of those men you still see piloting horses through the crowded motor traffic on the lower west side of New York. He had not been feeling well for some time; he had had a cough that would not clear up. He had hung on to his work because stopping work meant stopping pay, but finally a friend said to him, "You'd better go over to one of those clinics where the doctors tell you what is the matter with you;" and Tom went, and the doctor made an examination and told Tom that he had tuberculosis, told him that it was not in an advanced stage, that he need not worry; if he could go away for six months to a hospital, he would probably get well and be able to come back to work. Now Tom Kennedy was no weakling, he was no quitter, he was the sort of man of whom thousands went over the top a few years ago without any thought of the danger ahead. For eight years as a teamster he had supported his family and had not asked odds of anyone in New York City, and now the doctor said to Tom, "You must stop work for six months;" and he looked at the doctor in a dumbfounded sort of a way, and this is what he said, as the doctor told me afterwards: "How in hell am I going to stop work for six months when I have got a wife and four children at home dependent upon my wages?" Now the doctor had done his work well, he had made a diagnosis, done it kindly, he had probably given the patient an encouraging pat on the shoulder when he told him he would get well in six months; but there were others waiting outside for the doctor,

and Tom Kennedy slipped on his shirt and coat and walked silently out of the clinic. It was tremendously important that somebody get hold of Tom Kennedy right then and there and show him the way. What did happen? Just this. The auxiliary nurse took Tom Kennedy when he got in the outer room of the clinic and told him what tuberculosis meant, told him she knew of people who would invest money in his children for six weeks and take care of them, told him that she would come to his house that afternoon when the clinic work was over, and talk with him and his wife and refer them to an agency that would see them through their trouble, and Tom Kennedy walked out of that building with a new hope in his heart, the way had been opened up to him.

Now there may be those who say that all the nurse did was unnecessary, that the doctor or some clerk could have given Kennedy a slip of paper with some addresses on it and said, "Go and look up those people and see what they will do for you." Oh, but it made such a tremendous difference to that man for someone right then and there, attached to that clinic, in Kennedy's mind, attached to the doctor, to point out the way; and I say to those people who say that it did not make a difference, that they do not know the psychology, they do not know the workings of the minds of the Tom Kennedys, of whom we have so many.

Let me tell you another actual story. One day last summer Mrs. Burns, a little widow living in a tenement up in Harlem on the east side, was taken with very violent pains while she was doing her morning work, and a neighbor across the hall went out for a doctor, and the doctor, in turn, as soon as he saw Mrs. Burns, sent for an ambulance and Mrs. Burns was hurried off to the hospital; there the diagnosis was made, acute appendicitis, and it was decided necessary to operate at once. Now, the agony of the suffering, the physical suffering that was Mrs. Burns' at that time, was as nothing to the mental anguish which was hers as she thought of the three children she had left at home, two of them playing on the street, not even able to see them when they brought the ambulance to take her to the hospital. Now what did it mean to Mrs. Burns when she was told, there on the operating table, that a worker from the social service department of that hospital would go at once to her home, find her three little children and positively arrange for their care while she was in the hospital? What did it mean to Mrs. Burns that evening, when she came out of the ether and that same nurse whispered in her ear, "I have seen your children, I have arranged with a Fresh Air Agency to take them all to the coun-

try for three weeks tomorrow morning, and when you are well enough you can go and visit them." Does anyone deny that it meant a gain of days in that woman's recovery? Is there any higher therapeutics than this sort of treatment? Do these things seem ordinary to you? Oh, I just hope they are ordinary in the sense that you are doing them every day in your hospitals all over the country. It just happened that through the thoughtfulness of a co-worker of mine the first letter that Mrs. Burns wrote, after she was able to write, came into my hands, and let me read it to you. This is just exactly what it meant to Mrs. Burns:

"Dear Friend: Just a few lines to let you know I came out of the operation all right. I thank you a thousand times for your quick kindness in taking care of my children at such short notice. It was a sure thing to say a friend in need is a friend indeed. I was all worried about them, and it makes it much easier for me in the hospital to know they are safe and well. Goodbye and God bless you for the rest of your life for being so good to me. Your loving friend."

Now I could go on here and tell you story after story like that, real stories, because my memory is full of them. I could tell you other stories, stories in which there was not that same quickness of coöperation, that same understanding. I could tell you stories of duplicated quarts of milk that we hear so much about; I suppose I get a fresh one every week, but you know those are not so important to me as these constructive, positive things that I know hospital social service workers are doing, and it is those I care about, and knowing those things as I know them, I cannot subscribe to and I cannot understand the answer that was made. According to the Hospital Social Service Quarterly, a few months ago, where I read this; someone had asked the executive of a relief organization what there was constructive about hospital social service work, and the reply, as quoted, was "Nothing constructive, wholly destructive." It was not destructive to Tom Kennedy and Mrs. Burns and it need not be, it must not be to the many others whom they but typify. Do not misunderstand me; I know that everyone of us can do a good deal better work every day than we are doing, and there is not anyone in social work, whether it be in hospitals, whether it be doctors' clinics, or those of us in other agencies, who should not put this in his or her prayer every morning, if they are accustomed to pray, and if not, put it there anyway, "Help me to be humble and teachable this day and let me not make the mistake of thinking that my way must necessarily be the only way."

I have only just touched here on coöperative agencies. I am not here to talk about that, although I am not afraid to talk about it, but I would like to say one further word about it to hospital social service workers—Do not use up your energy and your strength in trying to do or in doing those things that other agencies are supported by the public to do; be a quick connecting link between those other agencies; switch your 'Tom Kennedys and Mrs. Burns' to them by the short circuit route, but do not try to do their work for them, and in order to be able to do that short circuiting you have got to know something about those agencies—perhaps not in a small community, where there are only a few and sometimes not any—but certainly in a city of any size, otherwise you are going to make some bad mistakes.

Let me get back to the individuals again. Only last Monday there came into my office a man looking very white and tired; he had in his hand a crumpled piece of paper; he handed it to me and I opened and read this, "I am sending this man to you in the hope that you will be able to find him some work; we do not handle cardiaes down here." And I turned over the other side of the paper and found another note, the original note, written by a nurse in the hospital social service work to the first agency that the man went to, who, in turn, had sent him to the second agency because they also did not handle cardiaes; and the second agency had taken a chance and sent him up to me. We do not handle cardiaes in the special sense, but we are supposed to handle everything and we were just lucky enough to find a job for that man. But suppose that sort of thing had happened to Tom Kennedy? Do you know what he would have said? He would have said, "Oh, I am going back to work, I am not going to fool around with these people like this"; and he would have gone to work and stayed as long as he could, and finally have broken down and then perhaps some agency would have gotten hold of the family and tried to do something when it was too late so far as Tom Kennedy was concerned. Do your own jobs, and also keep on insisting, as you do now sometimes, that other agencies do their work; but do not let other agencies be able to say to you, "You have done the thing that you need not to have done, and have left undone the thing which you ought to have done and which I cannot do."

Now I do want to say here this evening that some of the finest families I have ever known have been the families that have been referred to my organization direct from hospital social service departments. I sometimes wonder whether they would have come there of their own initiative, at least then;

fine people, who knew what to do, who knew what they wanted but who could not quite do it because of the extra stress and load that had come to them on account of sickness. Oh, it is an illustration I love to use, it came to me one morning as I was walking down from the Grand Central to my own office; they were excavating at that time for a large building, and as I passed I heard a lot of shouting down in the pit and looked over the shoring, and there way down below the surface was a team of horses with a big load of rock; the driver was on the seat and with his whip and voice was urging them up the planked roadway; they were straining at the chains, almost pulling themselves through their collars, half way down on their knees yet could not move the load an inch; and all of a sudden a man with a team swung out behind, drove up, threw his connecting chain ahead of the other team and gathered all the lines together, spoke a quiet word and the four horses went up with the load. He unhooked his lead team, and the two horses that had been having such a time started off with their own load down the road. It came to me again once when I was crossing Staten Island on a ferry boat; all at once one of the returning boats stopped, there was some trouble with the engine. The engineer blew his whistle and almost instantly there came tearing through the water, full steam on, one of those little tugs. It swung in beside the ferry boat, the crew threw their ropes over and lashed it to the ferry boat and away both boats went to the wharf where the repairs could be safely made. And that is what I want to urge upon you, that you give to your people who come to your clinics that quick, complete service that will restore them as quickly as possible to their families and to their communities, that will not only restore them physically, but will lighten this load of anguish and worry which is so often worse than the physical sickness itself.

There are several other things that came to my mind which I can only mention. First of all, this matter of giving proper convalescence to your patient. It is a field in which you have made great progress the last five years. How different it is today than five years ago when men just recovering from pneumonia were sent out of the hospital hardly able to walk; went home and in a few days staggered back to work because they had to get to work and begin to earn money. Today you are sending more of them away for complete convalescent care, giving them a chance to get into real fighting trim. Do you know, I believe that the considerable decrease in the death rate of tuberculosis of which we have heard so much lately is explained in no small degree by that better convalescent care that

has been given over the last five or more years to men suffering from pneumonia and kindred diseases, because when I read through over five hundred records when I was on the Board of Child Welfare of New York City, records of widows whose husbands had all died of tuberculosis, I found in almost all of those records case after case of pneumonia on the part of the man—pneumonia, relapse, pneumonia, tuberculosis and in six or more months, death. Now if that is true, you see what a tremendous service you have rendered the community by saving men to their families and to their communities.

Another thing I long to see is this, that the same care, the same treatment, be started for cardiacs as is now given to the tuberculous through our well organized tuberculosis clinics. There is too little being done for that group of people. I long also to see the time when there shall be more understanding, more attempt to deal intelligently with that large group of people who suffer untold agony because of mental troubles; I want also to see the day come quickly when we shall get out and fight in a way that is unafraid, fight that awful disease that wrecks so many women's lives, gives children the most deadly heritage and sends fathers stumbling off to insane hospitals. Now these are fields that are almost untouched compared with others, and you hospital workers must be the pioneers and leaders in them; I tell you that as you go into those fields and do the work there that you are doing in others, then you will be more and more able to show the community what hospital social service work means, then you will be more and more able to say, as did the Healer from Nazareth, "I have come that they might have life and that they might have life more abundantly." What army of soldiers ever marched in finer crusade! And so my last word to you this evening is keep your ideals and your standards high; as you have differences of opinion about methods of organization and ways of working, don't, I beg of you, let that result in poorer work for the people you are expected to serve. Go on writing your names in the hearts of your people through that sort of service by which those two workers wrote their names in the hearts of Tom Kennedy and Mrs. Burns.

I am very grateful to you for your courtesy in listening to me and also for the privilege of taking part in your program this evening.

CHAIRMAN CANNON: We are very grateful to Mr. Matthews for having given us this clear indication of some of the responsibilities of a hospital to the community. We are going to leave the discussion of all papers until the close of the meeting, and interrupt our regular program at this point to hear the

report of the Committee on Training for Hospital Social Work, of which Mr. Michael M. Davis is Chairman.

MR. MICHAEL M. DAVIS: The Committee Miss Cannon refers to was appointed a year ago by the Trustees of the American Hospital Association to take up the subject of training for hospital social work. It is rather interesting that during the course of the past year there has been a report which was discussed this morning on the training of nurses, particularly for public health work, a report which was discussed this afternoon on the training of hospital executives, and a report which is presented to you in substance this evening on the training of hospital social workers. The year just closing has thus been full of Committee reports on educational matters relating to hospital personnel.

The Committee included a varied group of eighteen persons since the subject matter of hospital social work is, itself, varied, touching medicine, nursing, social work, hospital administration, etc. The list of its personnel is Mr. Michael M. Davis, Jr., Chairman, 15 West 43rd Street, New York City; Dr. Louis B. Baldwin, Minneapolis; Dr. Frank Billings, Chicago; Miss Ida M. Cannon, Boston; Miss S. Lillian Clayton, Philadelphia; Mr. J. E. Cutler, Cleveland; Miss Annie W. Goodrich, New York; Miss Mary C. Jarrett, Northampton, Mass.; Mr. John A. Lapp, Chicago; Mr. Porter R. Lee, New York; Dr. Roger I. Lee, Boston; Miss Kate McMahon, Boston; Dr. Lewis A. Sexton, Hartford, Conn.; Dr. Winford H. Smith, Baltimore; Dr. Frankwood E. Williams, New York. The President and Executive Secretary, ex-officio, and Miss M. Antoinette Cannon, Executive Secretary, 105 East 22nd Street, New York City. Through a number of meetings, discussions, correspondence, and the travels and correspondence of the Executive Secretary, our Chairman this evening, Miss Cannon, the Committee has been able to reach a unanimous report. The report, when approved by the trustees of the Association, will be issued as a publication of the Association.

Editor's Note: The full report is substituted here for the resume presented by Mr. Davis.

REPORT OF THE COMMITTEE ON THE TRAINING OF THE HOSPITAL SOCIAL WORKER

Two years ago there was presented to the Association a report by a Committee appointed by the American Hospital Association to survey the status and make recommendations concerning the policy and organization of hospital social service

throughout the country. In its report the committee referred to the importance of providing more adequate training for hospital social service in order to meet the urgent demand for well-trained workers and for a larger number of them. In this connection the committee recommended, "That the American Hospital Association form a Committee on Training for Hospital and Dispensary Social Service, composed of physicians, nursing educators, hospital social workers, and educators in general social service, to make further study and recommendations upon this subject." The present committee which offers the following report was the outcome of this recommendation.

Appointed late in the spring of 1921, the Committee held its organization meeting during the first week of June in Boston, at the time of the convention of the American Medical Association. Since then four meetings of the Committee have been held, and a number of meetings of sections of the membership. The Committee secured the services of Miss M. Antoinette Cannon as its executive secretary. Her thoughtful and assiduous work has made this report possible.

The Executive Secretary has visited the chief universities and special schools training hospital social workers, and has conferred and corresponded with large numbers of those whose knowledge and judgment the Committee felt would be of value.

In the spring of 1922, a preliminary draft of a statement of an educational program and a proposed curriculum was prepared for the consideration of the Committee and was also submitted, by the Committee's direction, to some fifty other persons for their written or verbal criticisms. The first draft of the final report, made ready early in September, was likewise sent to a group of advisors. The Committee is most grateful to these many friends, whose names are subjoined in an appendix. In criticism of errors and in constructive suggestions the report owes much to their help.

An outline of an educational program for training in any field of professional or semi-professional service requires the specification of the following points:

- (a) What the general nature of the work to be done requires of the individual proposing to do it in a way of personal qualifications.
- (b) What preliminary education, experience and other admission requirements should be specified.
- (c) What length of training is necessary.
- (d) Essential subject matter of course.

(e) How the course should be adapted, as to length and subject matter, to students differing in extent and character of preliminary training.

(f) Methods of instruction appropriate to this field of training.

The following report attempts to cover these points:

Part I—A

NATURE AND RELATIONSHIPS OF HOSPITAL SOCIAL WORK

Why Hospital Social Work

It is a principle of modern education to know first the form of activity for which one is educating. According to this principle this Committee has accepted a certain concept of hospital social work and has then proceeded to consider all the elements in the equipment needed to perform such a piece of work.

The Committee making a Survey of Hospital Social Work, in its report to the American Hospital Association in 1920, says: "The restoration and maintenance of health depend in many instances not only on accurate diagnosis and direct medical treatment of pathological conditions of the body, but also upon the alteration or adjustment of his home conditions, occupation, habits and community relations." This truth has long been recognized by physicians, and the time seems to have come when provision must be made for special study, analysis, and treatment of these elements of personality and social environment in connection with organized medicine.

The essential part played in a hospital by such work is recognized in the report of the Committee on Training of Hospital Executives,* which says, speaking of the functions of the Hospital, "Service to the patient is the major function and includes adequate care and every reasonable attention to his physical and mental comfort. It includes prompt, accurate laboratory, X-ray and other determinations, and an interpretation of the social, economic—environmental factors which may be contributory to the individual problem. A reasonably accurate diagnosis and a logical, skilful treatment should follow an evolution of the facts and data secured. To render the treatment most effective, a follow-up and after-care function which aims at convalescent care, re-education and readjustment of physical or mental activities to secure promptly the highest degree of recovery and economic usefulness, is necessary."

*Principles of Hospital Administration and the Training of Hospital Executives, A. H. A., April, 1922.

Hospital Social Work as Part of Hospital

Hospital social work may be defined, then, from the point of view of the hospital as that part of its organization which deals especially with the personal and environmental factors in the health of its patients. Its function includes service to patients, education, research, and certain administrative duties which are helpful to the hospital in the maintenance of its community relationships. A general aspect of its function is its contribution to the defining of social policies of the hospital.

Function of Hospital Social Work

(a) Administrative.

In service to patients and to the hospital in community relationships the social worker in the hospital becomes involved to some extent in work that is a part of the administrative activity of the hospital. It is a question under discussion how such work should be related to other functions of the department of social work and how the social worker in the administrative position can be safeguarded from the always imminent deluge of sheer clerical labor. The opinion one finds most often expressed is that the administrative assistance given by the social worker is of secondary importance, yet necessary. The Survey Committee report says: "The primary work of hospital social service is work with individual patients. No hospital can, in the opinion of the committee, be regarded as possessing a social service department unless the primary function of assistance in the medical care of patients is practiced as one of the main activities of the department. In both the medical service and the social service there are also implied certain administrative activities which relate to groups of patients rather than to individuals, or to the community outside of the institution's activities, such as admission of patients, or the furnishing of information to outside agencies or individuals. The administrative activities of the hospital are maintained for the purpose of assisting the medical service, or giving it the right conditions to work in. Some of these administrative activities have large elements of social relationship or involve the careful dealing with personalities of patients or others. In such activities social service has a reason to participate. Thus, assistance in relation to the administrative work of the hospital, and in the community relation of the hospital, is an important, although a secondary, part of hospital social service."

Recently there have been successful attempts to perform these "secondary" administrative duties after a plan well defined and designed to emphasize the social elements in the hos-

pital's handling of patients. Such work as that at the Boston Dispensary, for example, indicates the constant necessity for applying social judgment in the admitting and following up of all patients, and places this type of administrative work on a permanent basis as a social function. It includes the admission and discharge of patients, management of clinics, and exchange of information between the hospital and other community agencies.

(b) Service to Patients.

In describing the "primary duty" of social work in the hospital the Survey Committee lists the following specific activities:

1. Discovering and reporting to the physicians facts regarding the patient's personality* or environment, which relate to his physical condition.
2. Overcoming obstacles to successful treatment such as may exist or arise in his home or at his work.
3. Assisting the physicians by arranging for supplementary care when required.
4. Educating the patient in regard to his physical condition in order that he may coöperate to the best advantage with the doctor's program for the cure of the illness or the promotion of health.

These activities form four steps in the solution of individual social problems: examination, adjustment within immediate environment, use of social resources in community, education for intelligent coöperation. The technique of this process has been developed in the field of social case work and is used not only in hospitals, but also in relation to the court and the school, and in organizations dealing with broken and disabled families, and with dependent and delinquent children. We may accept Miss Richmond's definition of social case work as "those processes which develop personality by means of adjustments consciously effected, individual by individual, between men and their social environment." Social workers have in the past fifty years found a number of comparatively definite ways of altering environment and thereby behaviour, e. g., by child-placing, by commitment to institutions, by change of work, by enlightenment of associates, etc., etc. Here we have, then, a technique readily adaptable to serving the purpose of that broadly conceived medical practice which includes in diagnosis and treatment all factors of health and disease, social as well as physical.

* "Personality" should be broadly interpreted here to include personal habits and activities as well as characteristic behavior tendencies.

(c) Group Treatment.

Not only individuals but groups of individuals can be dealt with according to methods of social treatment. The handling of selected groups by doctor and social worker as "classes" is a recognized form of medical-social treatment and is growing in use.

(d-e) Research and Teaching.

Research into social causes and results of disease, and teaching both of patients and of students of hospital social work follow inevitably as practice progresses. Some departments teach medical students and pupil nurses as well as students of social work. For these purposes records and statistics must be kept, facts must be collected and interpreted, and work must be done in such a way as to be susceptible to critical inquiry and examination.

Summary:

To summarize, hospital social work is the application to the uses of a medical institution of a method of adjustment of environmental relationships, which is being developed in the field of social work. Its purpose is to contribute to improvement of individual and public health through study of and influence upon social behavior. Through study of the patient's experience, social work should aid in medical diagnosis; through teaching and through changes made in home and work, it should aid in medical treatment; and it should help the administration of the hospital through a special knowledge of neighborhood characteristics, needs and resources. The specialization of the social functions of the hospital should make possible research into the social elements of physical and mental health.

Relation to Medicine

Social work used in a hospital to further restoration and maintenance of health becomes a part of the practice of medicine. It is a special process used in medical diagnosis, treatment and research, as are certain laboratory processes. It bears a relation to medical practice comparable to that which sanitary engineering bears to public health. Its purpose becomes one with the purpose of medicine, namely, health.

Relation to Nursing

Nursing is another technique used for the same purpose, dealing with the same groups of people, and therefore nursing and hospital social work have a coöperative relationship. They have a different method, technique and scientific basis, but both

form part of a medical plan for diagnosis and treatment; both have the background and the clientele of the hospital.

Relation to Public Health Nursing

Hospital social work is more nearly allied to public health nursing than to any other form of nursing. Both public health nursing and hospital social work are concerned with the relation of environment to health, and with the education of the community in matters pertaining to health. Hospital social work differs from public health nursing in its greater emphasis upon the adjustment of social relationships and the solution of problems of social behavior, while public health nursing especially emphasizes the protection of the health of the public.

Relation to Public Health Field

Since hospital social work, like public health nursing, acts to educate and protect the community in matters of health, it may be regarded as occupying a part of the field of public health.

Relation to the Field of Social Work

It also occupies a part of the field of social work. Its method and underlying sciences (sociology, economics, psychology) are the same as those of other branches of social work, and its purpose is a part of the general purpose of social work, for the improvement of physical and mental health and the better organization of the social forces of the community are essentially inter-related. The social worker in the hospital has often been called the interpreter between the hospital and outside social agencies, and interpretation seems an important part of the maintenance of outside relationships. If the social worker is to perform this duty for the hospital, he must keep in touch with other social agencies and keep well informed as to developments within the field of social work.

Varied Field in Social and Health Work

Social work as in connection with medical service appears in several different relations. Social workers are needed in organized social service departments of hospitals and clinics, but medical organizations which are too new or too small to possess social service departments, need, nevertheless, to carry on social work for the benefit of their patients. A tuberculosis clinic operating in a small town, for instance, will have a staff of one physician and one assistant. The latter must aid the doctor in a variety of ways: nursing, attendant and clerical service in the clinic, nursing and instructive visiting in the homes, and social work in the

clinic and in the homes. Training in medical social work is thus demanded not only for social service departments in hospitals and clinics. In many institutions, social work complying with the above definitions of hospital social service is carried on necessarily by persons who are also performing other functions. The nature of the training which these persons should have depends upon the nature of the service which they should render, and not merely on their designation as social workers, public health nurses, etc. The worker who is called upon to perform several functions of a differing nature requires not less training than the specialist, but more, because more varied training.

The Committee believes that some such training as is here indicated is a desirable part of the equipment of any social worker in the health field, even though it may not be complete equipment for certain positions in that field. In outlining this course, the Committee has, however, had in mind primarily the students who are to enter social service departments in hospitals and dispensaries.

PART I—B

History and Present Situation as to Training

Training courses for medical and psychiatric social work are already in existence, in universities and colleges and in schools of social work.

The first social workers, like the early doctors and lawyers, were taught by the apprentice system. Most of these pioneers had already had training in social work or nursing. The Survey Committee reported that of three hundred fifty hospital social workers interviewed one hundred ninety-three had had nurses' training and one hundred fifty-seven had not. A recent tabulation made by the Research Bureau of the American Association of Social Workers shows that in a group of seventy-nine hospital social workers fourteen had had nursing training, twenty-six had had training in a school of social work, and five had had both. Of the thirty-four remaining (43 per cent), twenty-five had at least two years of college education, the other nine had had experience of various kinds, but no formal or college training.

Course Given

The oldest schools of training for social work are but two or three years older than hospital social work, leaving out of account the summer school which was a forerunner of the New York School of Social Work. Practically from the beginning they have included in their curricula some courses in social

aspects of medicine or medical aspects of social work. The New York School, for example, in 1905-1906 gave a course in "Social Aspects of Sanitary Work," one division of which was called "Germ Sociology." The school's course in "Principles of Relief" had a section on "Elimination of Disease." In 1908-1909 there was a one-hour course of "Hospitals, Nursing, and Medical Relief." In 1911 to 1918 there were courses in hospital social work; field work was added to lecture courses, and in 1918, when the school was organized into departments, Hospital Social Work was one department. During the past year the Department of Hospital Social Work has employed three teachers to give courses in elements of medicine for social workers, public health, and medical-social problems. These courses are required of students preparing for hospital social work, in addition to the courses in social subjects given by the School. Practice has been organized in a medical clinic. The school has also a Department of Psychiatric Social Work, organized in 1918.

The Boston School of Social Work, established in 1904, has had a somewhat similar history in regard to its teaching of hospital social work. In 1905 a student went to the Boston School to prepare herself for hospital social work. At that time there were no special courses in this branch of social work, and no opportunities for field work in hospitals. One year of training was given in family case work and in community service. In 1912 an "advanced year" was added in medical social work, etc., and the social service departments of the Massachusetts General Hospital and Boston Dispensary were associated with the School to give practice in their field. In this second year of training thirty-four hours a week were given to field work, for the first 5 months; in the second 5 months, fifteen hours were given to practice, fifteen to a special study, and six to lecture-conferences.

In 1915 it was announced that the two-year program of the Boston School might entitle college graduates to the degree of Master of Science in Social Work at Simmons College. This rule, with certain definite requirements included, is still in effect. In 1919-1920 a course in "Principles of Physical and Mental Health" was instituted as a part of the first year work for all students of the School. Since then this course has been divided and further developed. The first year gives the students also work in statistics, labor problems, principles of case work and other social and sociological subjects. The advanced year in medical social work is continued as a period of supervised practice and conference.

The Pennsylvania School for Social Service (now Pennsylvania School of Social and Health Work) was organized in 1910,

five years after the beginning of social work in hospitals. This School has consistently made an attempt not only to prepare students for hospital social work, but also to provide courses in health subjects for all its regular students and for those taking extension courses. Its beginning was, however, very small. In 1916-17 the course in "Principles and Technique of Case Work" included about eight lectures given by a hospital social worker on "Case Work for the Sick." Then followed a half-year course of lectures on medical social work, which, combined with courses in family and children's work, housing, etc., and some field work in a hospital social service department, was considered preparation for hospital social work. In 1919 the School was departmentalized and, as in the New York School, one department was that of "Social Work in Hospitals," another was "Psychiatric Social Work." The social service department of the hospital of the University of Pennsylvania was used as the practice field in medical social work. The required work covered only one year, but the social service committee of the University Hospital gave several "working scholarships" to students who would give two years to preparation, spending at least one-half of their time in practical work in the hospital.

Perhaps the best defined course of training for hospital social work given under university auspices is at the University of Indiana where for some years such a course has been given as a part of the graduate work of the University, under the Department of Sociology. The course leads to the M. A. and Ph. D. degrees of the University. Certain parts of it are especially adapted for students of the school of medicine and are required as part of the medical training. Another part is given for nurses in training. Practice is given in the Robert W. Long Hospital.

An interesting combination of a medical school with other university departments is seen in the "Courses in Social Economics" now being given at Johns Hopkins University. These courses were organized in 1919 in coöperation with the Baltimore Alliance of Charitable and Social Agencies, and now (1922-1923) "the University is prepared to offer training in all fields of social case work." The course covers two years. Health plays a large part in the curriculum. The first year's work for all students includes: social case work, health and preventable disease, social medicine, immigrant peoples, community problems and organization, law and social work. In the second year the curriculum is elective and courses may be taken in a number of departments of the University, including the Medical School. The University in coöperation with Johns Hopkins Hospital offers a special course in Psychiatric and General Hospital Social Service to a

limited number of students who have completed the first year's training in the courses in Social Economics. Lectures are given by members of the University and Medical School. Required reading, clinical experience and supervised field work are given in the Social Service Department of the Johns Hopkins Hospital. (See Bulletin "Courses in Social Economics"—Johns Hopkins University, 1922-1923.)

Another type of course is represented by the School of Applied Social Sciences of Western Reserve University and by the Richmond School of Social Work and Public Health. These two schools offer in their departments of public health courses designed to prepare nurses for various forms of public health and medical social work. Hospital social work is among the forms of work for which preparation is offered. The theoretical work at Western Reserve covers: Public Health Nursing, Hygiene and Preventive Medicine, Bacteriology, Household Problems (budgets, etc.), Practical Sociology (including housing and public health), Problems in American Society (including statistics), Casework with Families (twenty-four hours of lectures, seventy-two hours' practice), Mental Hygiene, and Public Speaking. The whole course covers one year. "The field work is conducted on a full-time basis, about forty-four hours per week, during the second half year." (See announcement for 1922-1923.) Teachers College is another institution in which special attention has been given to the education of senior and graduate nurses for hospital social work. In 1911 a course was organized by the Department of Nursing and Health in the School of Practical Arts; separate lecture courses from various other departments of the college were available. Field work was given in the social service departments of the hospitals from whose training schools the students came. A few weeks were given in the field of family social work. The course was discontinued after June, 1922.

The training of hospital social workers at the University of Toronto is of special interest because of the form of organization of social and health work in that city. The administration of social work for the hospitals is centered in the City Department of Public Health, which places certain of its nurses in the hospitals for the purpose of seeing that all necessary social adjustments are made in all cases discharged from the hospitals. This work is known as the Hospital Extension Service. A report of the Health Department says of the workers assigned to this service, "Their task is to provide a link between the hospitals and the outside agencies who are prepared to give the treatment needed. . . . The public health nurses assigned to this particular team

plan should be selected for executive qualities not possessed by the average individual. They should be prepared to do intensive social case work when, as occasionally happens, it is unwise to enlist the services of another organization. They must be able, also, to interpret the social aspects of the case and the plans of outside agencies to the medical and nursing staffs of the hospitals." To prepare these workers and also the nurses in the districts, the University of Toronto offers courses in its Departments of Public Health Nursing and Sociology. All staff members are required to have taken one year in one of these University Departments in addition to their regular nursing training.

A recently developed type of institution is the Smith College Training School for Social Work. This school was opened in 1918 under the auspices of Smith College, as a course of training for psychiatric social work. The next year it was enlarged to include medical social work, and community organization. This school offers its academic work during the summer at Northampton, and its practice during the winter, at various hospitals throughout the country.

A system that is gaining advocates in some quarters is the one followed by Carnegie Institute at Pittsburgh, University of California, and a number of other state universities in which students in the School of Social Work are given vocational studies in the last two years of the undergraduate course, the first two years being devoted to general education. In some colleges vocational work is not begun until the senior year and this may be followed by a year of graduate work.

The institutions which have been mentioned in this brief review by no means comprise a complete list of schools preparing students for hospital social work. They have been chosen as being representative of the various types of educational organizations, purpose, and method which exist today and produce the trained women available for social work in hospitals.

Besides those several systems of training there have been many short courses designed to produce workers in an emergency, as in the case of the Red Cross courses, or to give nurses, during their training, some understanding of the social aspects of medical work, as in the nurses' training schools in which a few weeks or months in the department of social work is required or allowed. These short courses serve a useful purpose, but they should not be misunderstood to give complete training in social work. Such misunderstanding tends to keep standards low.

Auspices

Training for hospital social work is already carried on, then, under the following auspices:

- (a) A separate school of social work.
- (b) Department of Sociology of a university.
- (c) Department of Public Health Nursing, of a special school or university.
- (d) As special school of a college.

It is beyond the scope of this report to go into thorough discussion regarding the comparative merits of these types of organization. The subject has been discussed by Prof. Cutler ("Training for Social Work," 1922), Prof. Steiner ("Education for Social Work," 1921), and others. In considering it, two points must be kept in mind: (a) The necessity of close connection of theoretical teaching with the field of practice, as in a school of social work, and (b) The value of established academic standards and background and broad cultural facilities such as are supplied by university organization.

It must also be remembered that many of the subjects taught in preparation for hospital social work are of value in the training of medical students, nurses, and public health officers, and should be available for these groups of students, while on the other hand students of social work should find available courses in hygiene, public health, and other medical subjects. This constitutes a strong argument for the organization of courses under university auspices.

PART II

Training

From the foregoing discussion of the function of hospital social work it seems clear that equipment for it requires two elements, medical and social. After considering the possibility of separating these two elements and planning two courses supplementary to previous medical and social education, the Committee has concluded that the only way to reach a real standard, economize efforts of schools and students, and achieve well directed training is to plan a single course for each branch of hospital social work, medical and psychiatric, which will include every requisite for the performance of the job. Students who have already covered any part of the ground should be granted credit for units already completed. This possibility should be borne in mind in the division of the course into units.

Prerequisites—(A) Personal

The task of altering social relationships and social behavior is one of great responsibility and requires natural qualities the lack of which no training can supply. Moreover, social work as a whole, and hospital work especially, is yet young and undeveloped, it has as yet no universally accepted and applied standards, and its future depends largely upon the judgment, imagination and initiative of those who enter its field now. For these reasons it is important to encourage the training of students who have inherent capacity for leadership, and to plan courses which shall not only give a thorough working equipment to the average student of reasonable maturity and general education, but at the same time give every opportunity for development to the student of exceptional ability. The field is broad and varies enough to utilize many different talents. There is, however, a certain desirable basis for the selection of students.

The two fundamental prerequisites have already been mentioned. The first is that combination of resourcefulness, self-direction and responsibility which we call maturity, the second, education, or breadth and variety of mental experience, including much that is not directly utilitarian. Maturity does not come without time, neither does it come with time alone. The individual's capacity for development and rate of development are factors to be reckoned with as well as his experience. Using a stated age as a symbol of maturity then, rather than in a literal sense, we may say that a student entering training for hospital social work should be at least twenty-one years old.

(B) Educational

Preparation for a profession presupposes a background of general culture and education. Three years of study after graduation from high school seems a minimum preliminary educational requirement and is sufficiently elastic to permit the consideration of college work, nurse's training, and certain other types of systematic education, and also to allow for the type of combined general and professional training which begins professional courses in the senior year of college. There is a difference of opinion as to the value of this last mentioned plan. Certain members of this Committee believe that for psychological reasons better results are obtained by giving all professional courses as post-graduate. Others see in undergraduate professional courses the tendency of our age to infuse real life into the dry bones of a formal and outgrown educational system. It is not necessary for the Committee to pronounce judgment on this point. In this, as in many other matters, the decision must be

made by educational leaders in accordance with actual educational results.

From the standpoint of the teaching of the professional courses it might be preferable to make entrance requirements uniform, or as nearly uniform as possible. Most teachers are familiar with the difficulties of presenting a subject to a class including students of widely differing degrees and varieties of preparation for it. A certain minimum of uniformity may be secured by requiring that all students shall have taken courses in certain subjects before professional training is begun. Biology (taught by laboratory method), economics, history, and elementary anatomy and physiology are fundamental to the understanding of social work in its relation to health, and the college teaching of these subjects is comparatively well standardized. It would seem that they might be urged as preliminary preparation. It is impossible for the training school to cover these basic subjects and at the same time do justice to the professional curriculum. Schools teaching hospital social work may not be able at present to insist upon any specific subjects as entrance requirements, but can no doubt influence pre-professional education if they can agree upon the preliminary subjects which are really essential.

The teaching of psychology and sociology is different in different colleges. Psychology and sociology are, however, basic sciences of social work and must become a part of preliminary education.

Education in specific subjects does not make up for lack of general culture, and special requirements should not be pushed to interfere with variety in undergraduate work. Even the more general requirement of three college years probably ought not to be rigidly enforced, but other forms of educational experiences should be considered as qualification for admission to training as has already been suggested. The present source of supply of workers is varied. Many who are not college graduates have contributed much to the development of hospital social work from the wealth of former experiences and diverse abilities. It would be impractical and it would be shortsighted to cut off these varied sources of supply and narrow our basis of selection to college graduates most of whom would be untried and inexperienced and whose greatest recommendation would be the doubtful one of uniformity. Students lacking some elements of preliminary education may be able to make them up during the first year of training, especially if they offer credit in any of the subjects of the professional course. Arrangements of this sort will insure the necessary minimum of uniformity in preparation while allowing also the admission of students from widely varied

sources. Probably the best method of arranging for the making up of preliminary work is an affiliation with a university which will give students opportunity to take undergraduate courses or courses in other special departments. The school of social work need not then divert its energies from professional teaching.

Character of Professional Teaching

Preparation for social work, if it is to be professional, must be not merely an acquirement of knowledge, but in a true sense a training, the development of a fundamental point of view and habit of thinking. Such a process requires time. It requires also an educational method which combines theory and practice. The apprenticeship system should be superceded, as it has been in the established professions, because it gives too little direction to thinking, to the induction of general principles, and is therefore slow and likely to be incomplete. On the other hand, practice is not only an essential part of professional training, but should be the basis on which the theoretical part of the course is founded. The method of both practice and classroom work should be the "project method," in which the student does not merely receive information but is given a series of problems to work out. Discussion is indispensable, and the student's material should be as far as possible secured at first hand. In the course of working out his problems the student must acquire (a) an objective habit of mind, (b) a mastery of certain principles, (c) a certain body of information, and (d) a technique. The objective habit of mind is necessary to enable the worker to free himself from his own prejudices and regard situations sufficiently impersonally.

Practice

In regard to the arrangement of the practice period there are several possibilities, each with its advantages. The plan which has been most used in schools of social work is to devote certain hours each week throughout the year to practice. The time so spent has increased in most schools from two hours to two or three days, as the schools have realized the futility of having students try to handle practical problems in short bits of time. Certain schools, finding that their students' practice still lacked continuity, have devoted "blocks" of time to it. The Pennsylvania School, for instance, gives to practice three periods of four weeks each, at the beginning, in the middle, and at the end of the year's course, and continues practice for ten hours' a week throughout the other twenty-four weeks of the course. The New York School gives, besides two days a week throughout the year, two weeks' full time to field work in December and one month

in the summer between the first and second years of the course. The Smith College Training School gives nine months to practice, preceded and followed by two month periods of intensive theoretical work. A certain amount of reading and conference is continued through the practice period.

The two considerations which must be balanced in deciding upon the schedule for practice are the need of concentration and continuity and the desirability of close correlation of practice with theory. There are also practical considerations in regard to convenience to the agency used as field practice and facilities of the school in arrangement of classroom work.

Practice must be done under supervision, and must be planned and carried out as part of the whole educational plan. For hospital social work it must give both familiarity with the medical institution and skill in dealing with social problems. The field best suited to give both these elements is the department of social work in a hospital, and most, perhaps three-quarters, of the practice should be done in this field. Most of the student's time should be spent in one institution, for the sake of continuity. There should be observation in other medical and public health institutions in order that the student may learn to apply principles in various situations. For the sake of breadth of experience in meeting social problems, and because the student is to become the interpreter between hospitals and outside social agencies, some practice in the field of family social work is desirable, perhaps one semester. The value of nursing practice within the hospital wards has been strongly urged, but there are practical difficulties from the point of view of the hospital in arranging such practice especially to fit into the training for hospital social work, and the large majority of this Committee believe that properly planned and supervised observation of hospital procedure, and practice in social work for hospital patients in both wards and out-patient departments will serve the whole purpose of practice for hospital social work. Direct supervision must be given by workers within the agency supplying the problem material, and the school must have a voice in planning the practice and in judging results.*

Time

The course as planned by this Committee covers two academic years. Approximately half of this time is given to prac-

*For fuller discussion of the questions connected with practice see Cutler; Training For Social Work, P. R. Lee; Providing Teaching Material, V. Robinson; The Organization of Field Work in a Professional School.

tice, approximately one-quarter to classroom work, and approximately one-quarter to reading and other preparations.

Subject Matter

In general, the plan advocated by the Committee for the curriculum is as follows:

A—Medical subjects.

Physiology and hygiene.

Certain physical diseases.

History and organization of medical practice.

Public health.

Psychiatric and psychological principles of human behavior.

B—Social subjects.

Social case work.

Problems of medical social work.

Government.

Community and industrial organization.

Statistics.

The subjects of the curriculum have been selected for their essential contribution to the practice of hospital social work.

An understanding of the normal functioning of the body, the chief cause of its disturbance, and the means of maintaining health is a necessary part of the equipment of any social worker. A course in physiology and hygiene should be taught as much as possible by means of practical demonstration. It should cover the principles of growth, development, nutrition and infection.

The hospital social worker needs to know the social significance of the common diseases, especially the chronic infections and those diseases which cause permanent or long continued social disability. He needs to know their social causes and results, the conditions necessary to recovery, and the means of protecting others from infection and from undue burden of care. Courses in disease should, like courses in hygiene, be taught by clinical demonstration and by classroom discussion as well as by lecture.

A course in the history and organization of medicine and nursing and of medical institutions is advised for the purpose of giving the hospital social worker an intelligent understanding of the habits, ethics, and instruments of the professions with which he must be associated in his work. The hospital social worker has to interpret the medical profession to the community, and has, moreover, often to guide individuals in the securing of proper medical care. He should therefore have some basis for judging

the reliability of medical practice, as well as for intelligent co-operation in a medical plan.

All social workers should know something of the field of public health, and the hospital worker should obviously be familiar with it, since, as has been pointed out, hospital social work is a part of this field. The course should explain the functioning of governmental and voluntary public health agencies, should discuss the control of communicable disease, and should take up vital statistics in their relation to the maintenance of life and health.

The social subjects are necessary to give the student a sociological background, an orientation in his field and a technique. Social case work is really the central course. In it the student should learn his essential art of understanding and influencing human beings in their social life. It should be taught by the case method, with constant recognition of the relation of individual cases to general principles wherever they can be formulated. The study of psychiatric and psychological principles of behavior should give some scientific basis for the art of social case work. Problems of medical social work might well be taught in a seminary by the same methods as those used in teaching social case work, and the discussion should be related to the student's practice. Special problems of social treatment of the sick should be discussed, and also problems of the organization of health institutions and of community health.

Government, community organization, and industry are courses required to give understanding of social institutions and social forces, and to show the student how these forces may be used to further the purpose of individual and community health.

The value of training in statistical method has been questioned, and for some forms of case work it may not be necessary. However, we cannot stop with a narrow training for a special function, and since statistical method is the only instrument of measurement available in drawing conclusions from observation of social facts, it is important that any social worker who is to do constructive work should acquire the statistical habit of mind, be able to use statistical material, and have some skill in the assembling, measurement, interpretation and presentation of social data.

Another course which has been suggested from several sources is one which might be called "Household Administration." It would take up the planning of meals for a family, making of household budgets, and the household hygiene of ventilation, heating, lighting, etc. For students who are going into nutrition clinics or child hygiene it would be worth while to

spend considerable time on this subject, and some such study would be valuable for any social worker. Some of the topics might be covered in a course in "hygiene" if a separate course seemed impractical, but the subject of budgets would seem to need special provision.

Unity in Teaching

In any course it is important that one lecturer should be in charge and give enough of the lectures to make sure that the field is evenly covered. Courses given by a series of lecturers have been tried and found unsatisfactory. Special lecturers may, however, be brought in to give certain lectures with good effect.

Discussion of the Proposed Course

From the friendly critics referred to at the opening of this report, to whom the preliminary draft of the proposed curriculum was submitted last spring, and those to whom the present draft was submitted this autumn, certain outstanding criticisms have been received, to which attention should be given. The chief objections raised to the proposals of the Committee have been: (1) The course is too long, (2) the entrance requirements are too advanced, (3) taking into consideration the above points and the general subject matter and method of the course, the standard is too high to attract a sufficient number of students; (4) insufficient provision is made for students who had not previously had a nurse's training, to acquire familiarity in dealing with the sick and with methods of personnel of medical institutions; (5) the amount of medical instruction offered is insufficient and likely to be a mere smattering for those who have not previously had a nurse's training, and (6) the reverse criticism is made with equal force, that too large a proportion of the course is given to medical instruction, even for those who are not trained nurses, in consideration of the fact that the essential technique required is social and not medical.

It should be stated that other criticisms of a minor nature have been received, and many suggestions, all of which have been considered by the Committee and many of which have been incorporated and made use of in this report.

Do High Standards Mean Few Students?

The Committee has weighed with special care the six major criticisms above listed. With regard to the first three, which may be taken together, the Committee is of the opinion that these criticisms are based on the supposition (1) that the need of the field is for a large number of workers rather than for workers

qualified to meet the most exigent present demands, and (2) that a course of high standard attracts but few students.

As previously stated, the present needs of the social service departments in hospitals and clinics call, in the opinion of the Committee, especially for workers capable of exercising some leadership, and of developing standards and methods in a new field. Immature workers, or workers with brief training will, in our opinion, serve to increase confusion in the field of hospital social work and to retard, rather than to advance, the spread of hospital social service departments in additional institutions throughout the country.

The Committee believes that facts point toward the conclusion that a course of high standards attracts more students. The colleges whose standards are the highest are not those which receive the fewest applications for admission, but are the very ones which are deluged with requests. The experience of medical schools during recent years throughout the United States and Canada is obviously to the effect that the schools of highest standards draw the largest number of applications from prospective students. Most instructive of all, perhaps, is the experience of the nursing profession. Leaving out the temporary stresses produced by the war, the nursing educators on this Committee and many others who have been consulted unite in the opinion that lowering of standards in nursing schools has not resulted in bringing floods of applications for admission. In nursing education, as in medical, it is true today that the best schools show the greatest drawing power.

Is the Course Too Long?

The Committee is furthermore of the opinion that a course of two years in length is none too long in order that there be sufficient time to acquire the points of view and the working habits which hospital social work demands, and which, in their nature, cannot be imparted to the student in a moment. They must be the fruit of continued contact in the field and in the classroom with certain types of facts and certain groups of professional workers and patients with whom the student is engaged. Time is essential for the absorptive processes. This is particularly important in hospital social work at the present time, since there are many students with previous professional experience who have to acquire the point of view and the technique of a new vocation. The nurse, for example, with excellent training in hospital and in college, perhaps also with experience in private duty or in public health work, needs not less than one year in supervised practice of social case work and of classroom

study, because she must acquire a point of view which differs from, though is not antagonistic to, that which her previous training gave her as an approach to the patient; and in addition to the new point of view, a new technique must be learned. The student with several years experience in general social work, as with a charity organization society, likewise needs a long period so that she shall secure in classroom and in practice the medical information and the ability to work with medical personnel and with sick patients. With these two types of students there is a complementary emphasis. In either case, it may be possible for students with such previous preparation to secure advance credit for those medical or social portions of the complete course with which they are familiar and thus to complete the course in less than two years.

Should Students Live in the Hospital?

After much discussion, the Committee has come to the conclusion that a period of residence in a hospital is not a necessary part of the training of a hospital social worker. The large amount (of practice work required in the proposed course, the major part of which is in the social service department of a hospital or clinic, will bring the student for a large part of the working time for at least one year into continuous contact with the personnel and conditions of a medical institution. It is believed that there is insufficient reason for adding to this a requirement as to residence.

Too Much Medical Subject Matter? Or Too Little?

The two conflicting criticisms, that on the one hand the course gives only a smattering of medical information, and on the other hand that it has relatively more than hospital social workers require, must be answered together and in two ways. In the first place, no course within reasonable limits of length can include sufficient information on any subject to suit the specialist in that subject. In the second place, the Committee believes that the hospital social worker should not be expected to acquire a mass of detailed information regarding anatomy, the pathology of disease or technical procedures in the care of the sick. The greater part of the information included in courses of anatomy, physiology and disease which the medical student must have, and which the nurse must have in part, is entirely unnecessary, and, indeed, undesirable for the hospital social worker. The human body must be taught from the point of view of function; disease from the point of view of its economic and social relationships. The medical student and the nurse need the same

information, and in addition, much more. If the medical subject matter proposed in the course is conceived and is taught from this point of view, it is believed that sufficient time is allowed and sufficient subject matter is offered to meet the needs of the hospital social worker. That the course has too much medical subject matter and allows too little time for training in social case work, the Committee does not believe, since (1) the practice is chiefly in social work, even though in the medical field, and (2) the student's future service as an employed worker should constantly broaden her knowledge and perfect her technique in social case work, whereas she may not have the time or opportunity after graduation to read and study on the medical side.

A variety of demands are made upon the hospital social worker in different branches of medical service and by physicians of different interests. The social worker in an eye clinic, for instance, needs to have certain technical information regarding eye diseases which no general course in social work or in nursing could have supplied, and which she must acquire either "on the job" or by special study. A doctor accustomed to make use of the social service department to inquire into the personal and social conditions of his patients in their bearing on diagnosis and treatment will utilize the aid of social worker in his ward or clinic in quite a different way from the physician who has specialized his interests more narrowly. The hospital social worker must adapt herself to varying conditions and demands. These points emphasize the need for sound general training, maturity, adaptability and power of growth.

Conclusion

It is the Committee's hope in making this report that the proposed curriculum will be brought to the attention of the educational institutions throughout the country which are interested in the training of hospital social workers, and that practical steps may be taken to try out the recommendations of the Committee, by the modification of existing courses, or the establishment of new ones in the directions herein indicated. The test of an educational program comes in the laboratory of practical experience with the student in the classroom and in the field. The Committee's curriculum includes (1) a larger proportion of medical subject matter and of practice work than is at present offered by most of the schools of social work, and (2) a much larger proportion of training in social case work and of supervised practice in social work than is offered by some of the uni-

versity training schools and nursing schools. The value of our recommendations must be determined by the tests of practice.

It is recognized that conditions in universities and schools training hospital social workers vary widely, that no standardized or uniform curriculum is at present conceivable. The field of training for hospital social work is, in a measure, one of educational experimentation, and the Committee offers its report with the desire that its suggestions may aid existing schools in the advancement of curricula and methods, and that it may be suggestive also to those who are considering the inclusion of social subject matter and methods in the curricula of schools of medicine, public health and nursing.

In presenting this report to the trustees of the American Hospital Association, the Committee trusts that its report will be accepted and the Committee discharged. The present Committee has fulfilled the function for which it was appointed. It would seem, however, that some service might be rendered by a committee, primarily of representatives from the educational organizations now offering training for hospital social work, which would serve as a medium for intercommunication so that each organization may learn from the others the results of its experimentation in subject matter and method. The Committee believes that training for hospital social work will proceed more rapidly, will be made more self-conscious and more helpfully critical, if some such coöperative committee among these educational institutions be in existence.

PART III

Curriculum

The following plan is made as a suggestion to schools interested in the practical possibilities of fitting the recommended subject matter and practice into a two-year schedule:

A differentiation is made in the second year between training for medical and training for psychiatric social work. The subjects scheduled for the first year are considered fundamental to all types of hospital social work. In the second year, 180 hours are the same for both groups of students; i. e., principles of disease, government, public health, and one semester of the seminar in medical social problems. Two courses required of medical social workers are not required of psychiatric social workers, namely, medical and nursing practice and household management. Four hours in each semester are left free for electives for the medical social group. The students of psychiatric social work are required to give six hours in the first semester

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and eight in the second to special psychological and psychiatric work.

PART III

Curriculum

Outline of curriculum planned for two-year course, two semesters per year, eighteen weeks per semester, forty-five hours per week.

A. Practice: 21 hours a week (373 hours a semester) for four semesters or the equivalent of that amount of time in a continuous period, or in two or more periods.

B. Classroom Work: (12 hours a week, 216 hours a semester).

Year I

<i>Subjects</i>	<i>Sem. 1</i>	<i>Sem. 2</i>	<i>Total Hours</i>
1. Community Organization	2 hrs.		36
2. Industry	2 hrs.		36
3. Human Behavior	2 yrs.		36
4. Mental Hygiene of Childhood and Adolescence		2 hrs.	36
5. Social Casework	2 hrs.	2 hrs.	72
6. Structure and Function of the Human Body	2 hrs.	2 hrs.	72
7. Principles of Disease.....	2 hrs.	2 hrs.	72
8. Statistics and Research.....		2 hrs.	36
9. Medical Social Problems (Seminar)....		2 hrs.	36
	12	12	432

Year II

<i>Medical</i>	<i>1</i>	<i>2</i>	<i>1</i>	<i>2</i>	<i>Psychiatric</i>	<i>M</i>	<i>P</i>
10. Principles of Disease	2 hrs.		2 hrs.		(10) Principles of Disease	36	36
11. Medical Social Problems (Seminar)	2 hrs.	2 hrs.	2 hrs.		(11) Medical Social Problems (Seminar)	72	36
12. Government	2 hrs.	2 hrs.	2 hrs.	2 hrs.	(12) Government	72	72
13. Public Health ...		2 hrs.		2 hrs.	(13) Public Health...	36	36
14. Household Hygiene and Management	2 hrs.					36	
15. Medical and Nursing Practice.		2 hrs.				36	
16. Electives	4 hrs.	4 hrs.				144	
			2 hrs.		(14) Psychology (Mental Test)...		36
			4 hrs.	2 hrs.	(15) Psychological Social Problems (Seminar)		108
			4 hrs.		(16) Delinquency Problems		36
			4 hrs.		(17) Domestic Relations and Industrial Problems...		72
	12	12	12	12		432	432

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C. Preparation: 12 hours a week (216 a semester) for four semesters, including reading written papers, special studies, etc.

Electives may be in child welfare, delinquency, nutrition, administration, special medical subjects, advanced work in any of the subjects in the required list, and other subjects. Students in medical social work may elect courses in delinquency, domestic relations, and industrial problems required for psychiatric social work.

COMMUNITY ORGANIZATION

A study of efforts which have been made to better social conditions in various places through the organization of the inhabitants, as, for example, the establishment of health associations, neighborhood associations, community churches, etc. Records of actual experiences should be used as material for analysis, and readings should be assigned in the theory of community and should, with the concrete material of the records, form a basis for discussion.

INDUSTRY

The development of industrial organization and its effects upon the social life and especially upon the health of the people. Present problems of industry, efficiency systems, question of "fatigue," industrial hazards, various attempts to solve certain problems, workmen's compensation particularly.

HUMAN BEHAVIOR

A study of the physiological basis of behavior, and its social influences and implications; specific attention to the reflex, conditioned reflex, integrating function of the nervous system, influence of glandular secretions upon reactions of individuals, meaning of these physiological facts in relation to habit forming, teaching of children and of adults, and the possibilities of social control. In general, an attempt to develop in the student an unprejudiced and analytical attitude toward problems of social behavior.

MENTAL HYGIENE OF CHILDHOOD AND ADOLESCENCE

Following Course 3 in Human Behavior, further and more detailed consideration of facts known as to mental and physical development; effect of hereditary, congenital, and environmental influences upon the child; factors which go to make up personality. The course should help the student to a better understanding of both normal and exceptional children, of the conflicts and difficulties of the growing boy and girl, and consequently of the later habits and characteristics of the adult.

SOCIAL CASE WORK

Courses in social case work are intended to equip social workers to deal helpfully with other human beings with respect to their ability to carry on in the face of particular kinds of difficulty.

The subject matter of the course should comprise the backgrounds of natural family, child and community life, social disabilities as they affect particular individuals, sources of information from which relevant social history and mental and medical diagnosis can be secured, social resources available to the individual and to families in the task of self-development, the processes which underlie the successful use of such subject matter—including chiefly interviewing, social diagnosis, organization and leadership.

Social case work can be most effectively taught when the case method is used as the foundation of instruction and the objectives are the development of the capacity of the worker for logical thinking in the use of this subject matter and the development of that power of leadership through which programs of a social treatment are made effective.

I. Structure and Function of the Human Body

An explanation of the normal functioning of the body; the important causes of its disturbance. A survey of anatomy and physiology for this purpose. Growth and development, metabolism, nutrition. Normal and abnormal functioning of the several physiological systems. Infection and immunity.

II. Principles of Health and Disease

The medical, preventive, social and economic aspects of disease. Defects, permanent and temporary, organic and functional; the association of defects with disability. Special aspects of hygiene, e. g., hygiene of pregnancy, infant, child, sex and mental hygiene, and the application of hygienic measures to various diseases, such as tuberculosis, cardiac disease, diabetes, nephritis, etc.

This course is to be conducted by classroom work and by demonstrations of diseases in the ward and in the clinic.

STATISTICS AND RESEARCH

Analysis of vital statistics, showing their uses, correct interpretation, errors to be guarded against in drawing conclusions. Practice in making of schedules and tables, gathering material, presentation of material in graphic form. It is desirable also to

teach some methods of analysis and comparison, especially varieties and correct uses of averages and ratios.

The student should develop in this course a habit of accurate observation and statement, ability to understand statistical presentation of material, and some facility in the use of the simpler methods of measurement and interpretation of social data.

Students going into research must give more time to statistics than the brief course outlined here will cover.

Seminar in Medical Social Problems

A. Discussions of problems of the hospital and out-patient department, organization and functions, and on the place of social work in the institution, as based on concrete projects assigned to each student; e. g.

- a) observation of a hospital, complete
- b) analysis of a hospital report
- c) observation of a department of social work.

Reading: History of a hospital; reports; articles from Modern Hospital, etc.; A. H. A. Proceedings.

Written exercises: Letters. Reports. Chart of hospital organization to show relation of various departments* (relation of social work to administrations, medical staff, agencies outside hospital, the community).

B. Casework problems. The origin of cases in the department of social work; medical equipment needed by the social worker for handling cases; the processes of handling them, assembling of medical facts, comprehension of plan for medical treatment, assembling of social facts, plan for medical social treatment, use of resources, psychological effects of treatment, teaching of the individual patient.

Projects: Case records and cases handled in the department by students.

C. Group treatment. Effect of the group on the individual; principles of class management; value as research as well as remedy.

Projects: Experience in some class.

D. Discussion of special problems; convalescent care, chronic disability, handicap.

E. Research problems.

Practice in assembling facts and reporting them by tables, charts and written narrative and statement. Assignment of a definite research to each student.

F. Ethics.

Government

I. A study of the functions and operations of government as the social worker is likely to experience them. Discussion of parties, direct primaries, etc., from the point of view of the social worker. Steps in initiating a law, method of state administration and of municipal administration.

II. A more detailed study of government agencies, public departments and their administration, different types of administration. Special consideration of the judiciary—grand jury, district attorney and special courts. The relative merits of procedure by civil suit, by law, and by equity, in making certain social adjustments. Outline of the law of domestic relations, marriage and divorce, parent and child, master and servant. Types of social legislation and the agencies and methods used in obtaining social legislation.

Public Health

Sickness as a community problem.

Historical basis of development of public health measures.

Federal, state and local health departments; functions and activities. Epidemiology. Vital statistics.

Health work in the rural communities.

Volunteer health agencies and movements.

Community medical problems.

III. Medical and Nursing Practice

Lectures, conferences and observation.

The field for observation will be hospital wards, laboratories and out-patient departments.

This course will consist of a series of lectures aiming to afford the student an understanding of the following topics:

A. A brief survey of the essentials of medical history from its beginning to the present time.

Ethics of medicine in private practice.

B. Special emphasis will be given to the various types of medical work in hospitals such as:

Relation of danger of exposure to contagion, to the conduct of the hospital, especially as it is related to children's hospitals.

The importance of a thorough knowledge of the occupational diseases, with observation of such in hospital wards.

Other special types will also be presented.

The various types of hospital clinics, such as venereal, cardiac, prenatal, post natal, etc., their conduct and relation to the hospital organization, will be presented.

The relative importance of the generalized and specialized worker in the physician's private practice. The content of such a practice is also dwelt upon.

The growth and expansion in medical work in rural districts and its relation to social work.

- C. Under nursing will be presented its historical development; the problems of training school organization in connection with hospitals of various types.

The arrangement, control and supervision of practical work, in wards and other departments and inter-relationship of departments. The place of the student nurse and the graduate nurse in the organization will be defined, together with the ethical principles upon which the nursing profession is founded.

HOUSEHOLD HYGIENE AND MANAGEMENT

Principles of nutrition as applied to feeding a family; making and administration of household budgets; principles and methods of heating, lighting and ventilating dwellings and tenements, and other matters of household sanitation.

ELECTIVES

According to the schedule suggested here, four hours a week throughout the second year are available for work which the student may choose, (a) to round out incomplete preliminary education, or (b) because of special interest and plans for future work.

The student might need for the first purpose, standard undergraduate courses in politics, economics, sociology, psychology, history, biology, anatomy, physiology, or perhaps even more fundamental subjects such as English.

For the thoroughly prepared student electives should be obtainable in a variety of special medical and social subjects.

Equipment along various lines is useful according to the different branches of medicine and surgery with which social work is associated. For example, the worker in the industrial clinic will need more knowledge of working conditions than can be supplied in one brief course, and the student who is to enter this field should have opportunity to study not only economic theory and history of industrial development, but also the detail of industrial hazard and hygiene, psychological problems of industry, and something of the technique of personnel management and vocational guidance.

The student looking forward to work with children may choose to take up problems of dependency and delinquency of children, illegitimacy, feeble-mindedness, and other handicaps, together with further work in nutrition and infant and child hygiene.

Advance courses might be offered in problems of tuberculosis, syphilis and gonorrhoea, orthopædics, and heart disease, all of which are conditions combated by organized medical and social work.

For experienced workers contemplating executive positions courses would be useful in department management, business administration, and supervision of case work. Public speaking would be useful to many.

The courses planned especially for the psychiatric social worker in mental aspects of delinquency, domestic relations and industry, should be open to students of medical social work as electives. These courses should form a useful part of the equipment of the social worker in any field.

APPENDIX I

BIBLIOGRAPHY

- What is Social Casework?—Richmond.
 The Profession of Social Work.—American Association of Social Workers.
 Training of Hospital Administrators.—Rappleye.
 The Place of Social Service in the Hospital.—Thornton.
 The Function of the Caseworker in the Hospital.—Thornton.
 The Function of the Social Service Department in Relation to the Administration of Hospitals and Dispensaries.—I. M. Cannon.
 The Function of the Social Worker in the Hospital.—M. A. Cannon.
 The Psychiatric Thread Running through all Social Casework.—Jarrett.
 Training for Social Work.—Cutler.
 Education for Social Work.—Steiner.
 Report of Committee on Survey, American Hospital Association, 1920.
 Report of Field Secretary, Committee on Survey, American Hospital Association, 1920.
 The Place of Psychiatric Social Work in the Social Service Field.—Gage.
 Dispensaries: Ch. VI. The Ten Essentials of a Clinic.—Davis and Warner. Ch. VIII. Social Service.
 Providing Teaching Material (National Conference Social Work, 1920).—Porter R. Lee.
 Organization of Field Work (National Conference Social Work, 1920).—V. Robinson.

Bulletins of Schools and Universities:

- University of California—Department of Economics and School of Nursing.
- Simmons College, Boston.
- McGill University.
- University of Toronto.
- University of Chicago.
- Smith College Training School.
- Fordham University.
- Indiana University.
- Johns Hopkins University.
- Western Reserve University.

Richmond School of Social Work and Public Health I and II.
Pennsylvania School of Social and Health Work.
Carnegie Institute of Technology.
Columbia University—Teachers' College.
New York School of Social Work.
Missouri School of Social Economy.
Bryn Mawr, Woershoffer Department of Social Economy and
Social Research.

"HOW A NEW JERSEY COUNTY AND ITS HOSPITALS GOT TOGETHER"

John L. Montgomery, Executive Secretary, Monmouth County
Organization for Social Service

Monmouth County, New Jersey, is located on the seaboard some fifty miles south of New York City. It is 538 square miles in area, with a permanent population of approximately 100,000, but in summer this number is more than doubled owing to the influx of visitors to the 25 resorts along the shore.

Monmouth is one of the richest agricultural counties in the whole country. There are only two fourth class cities in the County; the rest of the population live in small boroughs and in rural townships. Here we find a fair cross section of the people that go to make up a typical mixed urban and rural community, due to our close proximity to New York and the cities of northern New Jersey, and its resultant diversified industries. The population is made up of native born Americans of all types from the New Jersey "piney" to the best revolutionary stock, together with a large number of foreigners. They farm, fish, and work in small factories for a livelihood, while some commute daily to the cities or live retired on their country estates.

To serve this population we have two general memorial hospitals—the Monmouth Memorial at Long Branch, with 178 beds, and the Ann May Memorial at Spring Lake, with 75 beds—and a county tuberculosis sanitorium, with a capacity of 50 beds.

Realizing the importance of the role the hospital plays in a public health campaign, with its opportunity of care and treatment of the physically and mentally ill, education in hygiene, and the prevention of disease, we, as a county, are trying to bring about closer coöperation between our hospitals and the community. I will enumerate here some of the ways in which this has been accomplished:

Clinics offering the following services are to be found in the two hospitals: Eye, ear, nose and throat; orthopedic and

surgical; pediatric and pre-natal; cardiac, medicinal and gynecological; urological; neurological; skin; tuberculosis, and dental.

A decided forward step was the acceptance by the hospitals of a clinic conducted by a specialist from the State Tuberculosis Sanatorium. There are four of these clinics held monthly; one at each of the hospitals, and the others at convenient points in the County.

Children from the nine child welfare clinics conducted by outside agencies throughout the County are referred to the hospitals for treatment, and beds in the hospitals are assigned to these children on an organized system so that a plan for curative treatment can be made as part of the year's program of each of the agencies.

Another splendid example of getting together was when one of the hospitals provided facilities for holding a psychological and psychiatric clinic. The purpose of holding this clinic was to determine the value of this type of service in handling some outstanding cases of problem children in our schools and also some border line cases of adults for institutional care. Partially as a result of this demonstration clinic, the Laura Spellman Rockefeller Memorial Fund, through the National Committee on Mental Hygiene, furnished to the County a traveling mental hygiene clinic with a staff consisting of a psychiatrist, psychologist and a psychiatric social worker. Dr. V. V. Anderson, director of this clinic, presented its purpose and needs to the board of managers and staff of the Monmouth Memorial Hospital, and, by resolution the hospital offered very definite service and the closest coöperation.

Dental service is available at stated periods at one of the hospitals for school children and others. This service is very helpful to nurses doing health work in rural schools too small to have dental equipment of their own. Through the efforts of the president of the board of managers of the other hospital, realizing the value and importance of dental service to school children, a nucleus has been raised for a traveling dental clinic to serve the children of the distant rural schools.

Again, from the plan adopted by the county taxpayers to provide hospital care for indigent persons, we see the County and its hospitals coming together. The plan briefly stated is that at the end of stated periods the Boards of the Hospitals present the names and number of days indigent patients were treated, and the governing body of the County, on a per diem basis, make an appropriation to the hospitals. Last year this amounted to something like \$75,000. How much better, service

given in this manner is, than having a separate hospital for indigent patients of the County—and at much less expense to the taxpayer!

As part of the program that has been mapped out, the County Adjuster (known in some localities as the commissioner of lunacy) will probably be given additional authority by the governing board of the County, to investigate the indigency of patients receiving treatment at the hospitals, and will thus relieve the hospital of that type of investigation. At present a brief statement of the ability of patients to pay for treatment is furnished to the Social Service Departments of the hospitals by the local nurse arranging for care. Such a system, while not working perfectly, seems to be along the right line.

Here let me add that the Social Service Departments of the hospitals are constantly in touch with the community and school nurses as well as social workers and often call upon the communities to help in solving their social service problems, especially where court action must be taken.

Last year all the physicians of the County were invited to come together to meet with such eminent men as Dr. Michael Davis and Dr. Haven Emerson. At this meeting staff members of the hospitals, members of the three medical societies of the County, members of the board of governors of the hospitals, public health workers and interested lay people, discussed the hospital facilities and needs for a County such as ours. It was with real interest that a Committee was appointed to study the County as a field and outline a plan to meet the needs.

The most important part of our program is the work of the school nurses in the correction of physical defects among our 25,000 school children. In New Jersey medical inspection in the schools is compulsory. Many physicians will not accept the position of medical inspector unless the boards of education appoint a nurse to do the follow-up work. They realize that the medical inspection is of little value without the follow-up work. It is obvious that unless the hospitals are willing to enter such a program and give curative care at specified and acceptable times to the school system, the nursing program will be, to a very large extent, a failure. This type of coöperative program makes the department of education as much interested in the hospitals as any of the groups in the community.

Perhaps, here, I should explain how nursing service is given to our rural school districts where there are not sufficient children to justify the boards of education to employ a full time nurse. The Monmouth County Organization for Social Service, of which I am the Executive Secretary, is supported by the pub-

lie in voluntary contributions. This organization is employed primarily in public health work, and its watchword is "prevention." We have gone before the boards of education in the County and offered nursing service to them on the basis of one day's service with transportation, for every 15 children enrolled. The service is offered to the various boards of education for two-thirds of its actual cost, the organization paying one-third, for the purpose of making a demonstration.

Great assistance is rendered through the hospitals designating physicians at convenient points over the County whose diagnosis they will accept for tonsil and adenoid operations. This eliminates the necessity of transporting the children to and from the hospitals for confirmation of school medical examiner's diagnosis. In a rural County transportation is one of the big problems in health work.

The hospitals have also agreed to plan their service to the Communities and to make assignments in advance so that all parts of the County will have their share of the services and will know how to plan their work. Each school nurse knows how many cases she may take in from her districts, and when.

A notable example of getting together was when the Ann May Hospital provided facilities for 28 tonsil and adenoid operations in an adjoining building to the hospital furnishing the medical staff, while the nursing work was done through the nurses of the Organization, whom I will enumerate later. We feel that the schools as an institution have recognized the hospitals as an institution, in order that they may work together.

This contribution has been one that the hospitals have always been glad to give and the spirit of help has been there; but there has never been the machinery to bring the community into the hospitals so the best use of the service offered could be made.

We have organized the machinery necessary, we think, to connect the hospitals and the community. It consists of a County Advisory Nurse, two-thirds of whose salary is paid by the Monmouth County Organization for Social Service, and one-third by the County Chapter of the Red Cross. In the County Advisory Nurse's department rests the responsibility for the carrying out of the public health program. She has one assistant whose duty is to supervise and assist in the school nursing program of the Organization. Under this assistant are three school nurses, who cover together 13 school districts. These districts are largely the rural ones. The organization also carries the full-time services of a County Tuberculosis

Nurse. This nurse coöperates with the school and community nurses, and is in charge of the tuberculosis clinic service.

The nursing department acts in an advisory capacity to nursing committees and their public health nurses, also to the school nurses employed by the boards of education where they have a sufficient number of children in the district to warrant a nurse's full time service. These nursing committees are federated and have quarterly meetings to discuss the problems of a rural community, thus getting a better understanding and appreciation of the problems the nurses in the field have to meet.

Last year the Department of Nursing and Health of Columbia University, looking for a rural field, requested the Monmouth County Organization for Social Service to take its students for rural experience. They have served as a stimulus to all the people in the County interested in public health.

The reason that our hospitals have been so readily recognized in the thoughts of the people of the County is not only because of their achievements, but because the demands on them have been the general result of a system whereby the community knew the hospitals were ready to give and make their contributions to the community on the basis of a program which has been so arranged that organizations like the schools and the child welfare clinics have been able to get the service equally divided and on a well planned basis.

SOCIAL WORK WITH THE PROBLEM CHILD

Mary Tobin, Director Social Work, Neurological Institute,
New York City

As we hear so much today about the so-called "Problem Child," some account of the weekly clinic which is held at the New York Neurological Institute may be of interest. This clinic was opened in May, 1921. It started as a piece of research work, an inquiry into the neuroses and delinquencies of childhood and the possibilities of their prevention. The material for this study was all drawn from the general clinics of the Institute. That there was ample need for just this type of work was soon apparent, for this small weekly clinic, functioning quietly within a larger one, soon needed the services of a second psychiatrist, so many were the demands upon its time. Children showing marked conduct disorders, or those making poor social adaptations owing to a nervously unstable make-up, were referred to this clinic. After a thorough physical and neurological examination in the admitting clinic, these selected

cases are given a psychometric test, Wasserman blood test, and referred to the Social Service.

A home visit is then made, for all social histories are taken in the home, and an appointment is given the mother to bring the child to the clinic. Thus, when the psychiatrist sees him for the first time, he has in hand all this collected information. On her initial visit to the home the Worker makes no attempt to learn the child's problem from himself, as this sometimes complicates matters for the psychiatrist.

A very workable type of record has grown out of this study, which we find practical. It is important that the doctor should know first of all why a particular child is brought to him, so under the heading "Complaint," this information opens the record. A complaint may be several typed pages or one-half page only, but it contains all the ascertainable factors going to make up the child's difficulties. The record then follows the usual lines as to family history, developmental history, habits and diseases, etc. Personality work is still necessarily crude, and it is often difficult to obtain much information on these initial visits, when, as sometimes happens, the interview is held with the aid of an interpreter; yet certain marked character defects are generally obvious. As an index to personality it is also important to have a description of the child at play and to know whether or not he gets on with his companions. The environmental history brings out not only the physical surroundings but also the factors making for harmony or discord in the home. The school report closes the social history and carries the child through the various grades, with the teacher's opinion as to his reactions in this environment.

The function of the clinic is primarily educational, so as to adjust these children to the family, school and social life, that their right to a future normal existence may be ensured. We have found to our surprise, that many parents grasp very quickly the spirit of the clinic and learn in a short time that by encouragement of the child, by their faith in his ability to overcome his trouble himself and by a desire to help him realize the best that is in him, the difficulties for which he was originally brought to the doctor straighten out. That they feel they have been helped is evident, because there has seldom been any difficulty in getting a child or his parents to make return visits.

The following story will perhaps illustrate this. An only child, a seven year old boy, was brought to the clinic last year. Since moving from the country to New York two years ago he had shown indications of a very nervous make-up, walked and talked in his sleep, was always on the go, and constantly

fighting with other children. Within the past year he added stealing and truancy to his troubles. With a gang of small boys he made several raids on a neighboring ten cent store and came away with a curious assortment of spoils such as perfumes, soaps, powder, lip-sticks and rouge. A last raid at Christmas on a larger store was the cause of his being brought to us. The school considered him a serious problem, though bright. He had to be brought to school daily by one of his parents. While there he was constantly watched by a monitor. As we were then at the height of the so-called "crime wave," the little mother was heartbroken, wept over him and felt that she was bringing up a promising young criminal. Once convinced by the doctor that this was not so, but that the whole thing was a nervous expression, she followed his instructions faithfully, with most satisfactory results. The boy attended the clinic weekly. Warm baths were ordered, rest in the afternoon, and increased feeding. He was sent to school alone. The family and school were encouraged to take up a more optimistic attitude in handling him. We still see him occasionally, although his delinquencies have entirely cleared up.

Michael's case also proves the possibility of educating mothers. This six year old boy of Greek-American parentage was brought by his mother, who complained that he was a very troublesome conduct problem. This behavior had lasted at least two years. He was difficult to control, was taking money from his mother, and when he went into a store with her, would take any small object he could safely get away with. The chief difficulty, however, was his marked desire to play with fire. He had started several fires which might have become serious. On examination he appeared a bright, well-developed little chap, in the first grade in school. The family and developmental history showed nothing significant. There was one other child, a small brother. The mother told a long story of her unhappiness and of her separation from her husband, whom she was suing for divorce, as he was going with another woman. In her lonely condition she was in the habit of talking freely of these affairs with the children, often keeping them up late and alternately over-indulging or punishing them according to her mood. This little boy had been devoted to his father and his mother tells how he stood at the window watching for the snow, as he had dreamed his father would come back when the snow was on the ground. Again he dreamed of bringing the father to the clinic to make him good. The task here plainly was to educate the mother. As she was an alert, intelligent woman, this was not difficult. She was

advised by the doctor to put the boy to bed at seven-thirty each night, to allow him to play on the street unattended, send him to school alone, and give him simple responsibilities. After a time all troublesome conduct disappeared, and the mother remarked that she herself had needed the clinic's help as much as her boy.

Not all cases, however, offer such a promising outlook. The more serious ones require infinite patience, and one must be ready to solve each problem as it presents itself. Henry was just such a case. This ten year old boy of German-American parentage had been nervous since an attack of colitis at three years of age and had always been difficult, but during the past two years he developed marked delinquencies. He was frequently truant and stole constantly, both from the home and from strangers. Although he was amply supplied with pocket money, he would steal more than he could possibly spend; but always shared with the other boys. His teacher reported that he had taken ten dollars from her. At this time he was in the 4A grade, was sullen and stubborn and refused to confess even when whipped by his father. The examination by the psychiatrist showed him to be a well-developed, well-nourished child with no marked physical defects. A psychometric examination placed him in the dull-normal group. The main thing was his nervous, overactive condition. He was always on the go, and it was impossible to keep him quiet. Special therapeutic treatment was ordered, such as warm baths and increased rest. In their weekly visits to the clinic the mother was urged to change her attitude towards the situation and to try to help the boy develop more healthful interests. He responded to the changed attitude of encouragement and showed improvement from time to time. Then another stealing episode would occur. At the coming of Spring, he seemed to run down. He was truant several times again, and was found about this time with a fifty dollar watch belonging to one of the roomers. It was now apparent that the situation was too much for the family, so the boy was sent to a small farm school in Massachusetts. He was eager to go, took the journey alone and from the first, wrote most enthusiastic letters. A recent visit to the school by his father gave us a most encouraging report. He said: "The boy's whole mental attitude has changed. He is built up physically, having gained ten pounds. There has been no stealing for the past six months and he is contented and happy there."

The group of children studied to date consists of 105, 41 girls and 64 boys. The maximum age was 18 years and the

minimum age was two years, with a median age of 11 years. As to the nationality groups, since the large majority of cases studied were quite young, it would seem a fair index of the racial groups could only be obtained by an analysis of the nationality of the parents. Of these, 12 children were of American born parentage and 93 of foreign born; i. e., 11.5 per cent American and 88.5 per cent foreign born.

In our group of 105 we find 29 new cases, children showing good possibilities of adjustment, on whom little work has been done to date owing to the closing of school and the fact that many are in the country for the summer. So it would seem fairer to base our comparisons on the 76 cases on whom intensive work has been done. This would give us the following figures:

	Number	Per cent
Total number of cases.....	76	100.00
Group 1—Satisfactorily adjusted	28	36.8
Group 2—Markedly improved, requiring further care	14	18.4
Group 3—Improved	11	14.4
Group 4—Unimproved to date.....	12	16.0
Group 5—Cases closed	11	14.4

The total number of cases showing satisfactory adjustment or very marked improvement (Groups 1, 2 and 3) was 53, or 69.6 per cent, which leaves a total of 23 cases, or 30.4 per cent, the number of cases showing no improvement (Groups 4, 5).

INTERPRETATION OF GROUPS

GROUP 1—Satisfactorily adjusted. This included children whose conduct disorders or neuroses, as nervous vomiting, enuresis, etc., cleared up; also children placed in an environment more favorable for their development.

GROUP 2 AND GROUP 3—Markedly improved and improved. These groups explain themselves.

GROUP 4—Unimproved to date. This includes children who have not yet responded to treatment in clinic and for whom Social Service has not yet been able to make satisfactory arrangements, such as boarding homes, special schools, etc.

GROUP 5—Closed cases. This includes 3 or 4 children whose parents failed to cooperate, one death, 2 children with psychosis (one of whom was sent to a state institution), and several children taken over by other agencies.

The keynote of success in this type of work, one feels, is the close personal touch kept with each case. It is not possible to generalize as to the amount of supervision, as each approach

must be as individual as each child. Some special cases of mal-behavior report to the psychiatrist weekly for a period, others less frequently.

The duties of Social Service in a clinic of this type are various. They consist not only in getting the initial history and environmental data, but also the admitting of all patients to the clinic and assuring their return visits. An effort is always made to keep the child in the home. He is removed to another environment only as a last resort. Much detailed work is necessary to secure boarding homes, country and private schools, scholarships for the child of high intellectual endowment, and various types of school adjustments. Especially important is the teaching of mental hygiene in the home. The work is, therefore, both educational and practical.

In summary, this brief study would indicate that, with few exceptions, the children have been helped to a more successful social adaptation. This is, no doubt, due to the close contact maintained with them—in other words, to the individualizing of the problem child.

August 22, 1922.

CHAIRMAN CANNON: Miss Cowles, who gives us our last paper, I believe, is not going to give a paper at all, but will just talk to us. Miss Cowles has had considerable experience in hospitals, both small and large, but chiefly small, as I understand. She is down on the program to speak about social service in the hospitals of small communities, but has asked leave to alter that subject somewhat and speak about the maintenance of social work in small hospitals. We feel sure that this subject will be of quite equal importance.

MISS ANNETTE COWLES, Superintendent of Children's Free Hospital, Louisville, Ky.: I fear that I owe you all an apology for even appearing before you, for I know that there are many of you who have had much more experience than I have had and who are better qualified to talk on this tremendously interesting subject; but, after all the heavy food that you have had tonight, I am just going to be the after dinner desert and am not going to give you anything very deep.

I wanted to tell you something about all of my experiences with social service workers, but I am not going to, I am simply going to confine it to what we are doing down in Kentucky. You have been hearing about the east, nothing but the east, and there is the great big south and there is the great big west. I think the south is really in greater need of help from social service workers, from public health nurses, and from every organization that can give help, than any other part

of the country. I have been pretty well over the continent, and I have never met with such ignorance as I have met with in Kentucky. I have never met with such degradation as I have met with in Kentucky. I have never met with such needs as we have here. To one who has never been down in the Kentucky mountains, it would be hard for you to realize just exactly the crude conditions that exist there; and it is the children from these districts that my social service worker is dealing with and is making such tremendous inroads in their hitherto colorless lives.

There is one case I would like to tell you about in a concrete way. We had a little child come to us from the mountains, with club-feet. For five generations there have been children with club-feet born into this family, and they believed this to be a dispensation of the Lord; that is the way they look upon these things.

This little child was brought in under great difficulties; first, the consent of the mother had to be gotten, through a public health nurse of that county, who had heard of the child's condition; then they had to ride twenty miles on mule back before reaching the railroad.

The mother insisted upon coming with the child, although she had no clothes fit to travel with; a collection was made in the little country hamlet, one giving a pair of shoes, another a pair of stockings, and still another a hat, and finally she was clothed so that she could come to Louisville.

She arrived at the hospital late one afternoon, and as soon as she was met at the door, she said, "Of course, I am not going to leave him here." "And why not?" "Well, because you would not give him the kind of food he wants." Then my social service worker, who was right there, said, "What kind of food has he been getting?" "Well, he has been getting about seven cups of coffee a day and that has been all the kind of food he wants."

And with that tact, which is not acquired, but which some seem born with, she said, "We have all the kinds of food here that your little boy will like and want." And the mother was at once won over.

It has been weeks and months that we have had little Clarence with us. In that time the confidence of the mother has been quite won, and when you win the confidence of the mother in a district of this kind, you win the confidence of hundreds of people on both sides of the mountain. This was due to our social service worker.

I know that it is often said, "How do you put your social service worker to work in a small hospital? What is there for

a social service worker to do?" It would be much easier for me to tell you what there is not to do than what there is to do. Our children do not come in like the children in the eastern hospitals; they must stay with us for months. We have some children who have been with us for years, and one of the splendid things that is being done is the teaching of personal hygiene to this class of boys and girls who came to us from the mountains, not knowing even what personal cleanliness means. This is done by our social service worker. It is one of the great avenues of work that she has undertaken to do.

She writes letters for the children, she gets into very close communication with the people; her work is so varied that it is hard to just put my fingers down on certain things and say that she does this or she does that, but she is busy all the time, and the results that we are getting from her work are so great that within this next year I am very much in hopes of getting a fund from the Rotary clubs, who have become tremendously interested in social service work, and they are going to give me, or they are trying to give me, a fund which will enable me to go down into the mountain districts and reach the homes at first hand. This will be a tremendous step if we can carry it out.

One of the very good things that we are starting in Louisville in connection with social service work is a course on social service work, which is being given by the Louisville University. So keen are the people to attend these lectures that at a meeting of the Board of Workers of the Welfare League it was put to vote, "How many want to take the University course?" and thirty-two within three minutes had signed up for it.

One of the things that I feel very strongly about, being a nurse primarily, first, last and always, is the lack of socially minded nurses. I wish that we could do something to awaken this in our nurses. I am trying a plan out. I have offered a scholarship to one of my supervisors who has given more evidence of being socially minded than anybody else on my staff, and she is going to be given the privilege of taking up this university course. I believe that if we could do this more in our training schools we would have splendid results. Just attending to the patients as they come in does not seem to be incentive enough for the seed of socialization to grow in our pupil nurses, there is something that even inhibits it in some respects, and I should like it if every nurse could be a social service worker, and I do not know but that I should like every social service worker to be a nurse; I do feel that the two are so

closely associated that there ought to be very little distinction in their work as applied in hospitals.

I am going to tell you a story and then I am going to stop. There was a little girl, four years old, who was very fond of a cat. She would play with this cat no matter what, but as the fur was coming out, she had been forbidden to handle it. She was visiting her aunt, and her aunt had said to her "Now, Bessie, you must not play with that cat any more, the hair is coming out, and I am afraid you will swallow some of it and it is going to make you sick if you do." And Bessie promised in good faith that she would not play with it any more; but the first thing we knew our Bessie was missing and upon looking for her she was found away down in one corner of the drawing room behind some curtains, playing with the cat. Her Aunt Anna went in and saw her; she stood with her back to Bessie, and Bessie thought she would go out unobserved, so she gathered up her skirt with the cat in it and was about half way across the floor when her aunt turned around and said, "Why, Bessie, what is that you have in your dress?" "Oh, nothing, Auntie." "But what is that down at the side of your dress?" And Bessie looked down at the side of her dress, thought for one moment, and she thought hard, and then she said, "Why, Auntie, I think it is the tail of nothing." (Laughter.)

I sometimes think that our social service workers are given the "Tail of Nothing," and when they follow that tail, they find disease, and they find poverty, and they find discouragement, and they find broken homes, and they find so many things that are just too terrible, and yet they have the courage and the fearlessness and the vision to go in and bring order out of chaos.

I would say, if I may be pardoned, I think that social service workers, as a whole, take their business too seriously; I think that some of them, at least, try to make over the world instead of helping it; there is a whole lot of difference in that.

Another thing I want to say is about social service workers and their reports; as that is one of the things that I have had to struggle with, getting "human" reports across to my board. They do not want to know about group cases, they want to know the human side of the story, that is the thing that boards want to know, and when you are enthusiastic about it and when you have a social service worker who will give this kind of a report, it is a mighty easy thing to talk about maintenance. I do not believe many of you will have very much trouble about the maintenance part if the superintendent is enthusiastic. This is of primary importance. The superintendent must feel the

need of the social service worker, and after she has felt that need and is sure that she needs it for her hospital, then she can get it across to her board and you have won the battle, because boards, after all, can always get the money that is necessary for these things.

CHAIRMAN CANNON: Miss Wadley has asked Mr. Bartine to say a word to us about the construction of the hospital with reference to the social service department, and I will ask Mr. Bartine to do that before we ask for the discussion.

MR. O. H. BARTINE: In discussing the problem of social service in its relation to the planning of the hospital, it is a lamentable fact that this, one of the most important features, is not by any means given the consideration in planning that its importance justifies. In many cases I have actually been compelled to lay great emphasis and stress upon the importance of this department to the patient, the physician and the hospital, before it has been incorporated in the general scheme of procedure. From a financial standpoint, it is one of the greatest assets of the hospital, owing to the high ideals combined with the efficient efforts of those associated in this work. Through this efficient work, given in a kindly spirit, the patient thoroughly appreciates all that has been done for her or a member of the family and spreads the good tidings of the hospital broadcast. I now have in mind a hospital that has discontinued the social service department. This hospital is continually criticized in its community, with the result, I am sure, that it has affected adversely those who have contemplated contributing, or possibly remembering the hospital in their wills. I believe the greatest opportunity presents itself in the out-patient department. Therefore, proper provision should be made for social service in that department in accordance with the work to be accomplished. Space should be allotted, preferably for separate rooms, rooms that will enable the patient to discuss her problems with as much privacy as possible. Then the matter of records and supplies should not be overlooked. The general social service department is preferably located near the executive office of the hospital, and the space to be allotted will depend upon the size and work of the hospital. In many instances a patient's full recovery has been retarded by small and great intimate personal problems, which, as an invalid in a weakened condition, she or he is unable to solve. These problems, handled in a kindly manner by the social service department, greatly shorten the period of convalescence.

CHAIRMAN CANNON: Has anyone a question which they would like to ask Miss Cowles? I was not very clear myself

whether her social service department is supported by the Board of Trustees of the hospital, and how many workers have you in your hospital?

MISS COWLES: Just one worker, supported by hospital fund from Welfare League.

CHAIRMAN CANNON: And how large a hospital?

MISS COWLES: Seventy-five beds.

The meeting then adjourned.

GENERAL SESSION

September 28, 1922, 10:00 A. M., President O'Hanlon in the Chair

PRESIDENT O'HANLON: The meeting will please come to order. We are late in coming together, but it is proposed to make a compensation by moving the evening session up to the late afternoon. The first number on our program this morning is the report on Laundry Machinery and Equipment, by Dr. Morrill.

REPORT OF THE COMMITTEE ON LAUNDRY EQUIPMENT AND SUPPLIES

Cost and satisfactory service are the two problems in the laundry and while there is little question in anybody's mind that the latter question is all in favor of the hospital laundry, it is found that many of the small hospitals have not carefully considered the question of cost because of the conviction that the cost of equipment and overhead of operating was so great as to prevent any economy in installing their own equipment. For this reason, especial effort has been made to secure information on this question and though the definite figures obtainable are rather meagre, they are fairly conclusive. But admitting for the sake of argument that the actual direct cost would not be reduced, there is so great a reduction in indirect costs as to make the hospital laundry a paying proposition even though the cost per pound is no less.

In the first place, the high-class commercial laundry catering to a family trade is not very anxious to do the hospital's work on account of the fact that their customers do not relish the idea. While they may do it if offered, they surely will not make concessions in order to secure it. If they do take it on, they will often require that certain badly stained or soiled pieces be washed out before being sent and this either causes serious delay in waiting for the pieces to dry or subjects the linen to serious danger of mildew. The stains to which hospital linen is subject are of such different character from those found in ordinary commercial work that unless the laundry uses special methods, for which the hospital will pay well, the stains will

either not be removed or if they are it will be by such drastic methods as to seriously impair the life of the linen.

Another feature that enters into it is the question of the delays incident to sending laundry out, and its effect on the size of stock that it is necessary to keep in circulation. It is perfectly possible by scheduling collections to have all ward linen from the morning change and all operating room linen used up to one o'clock. This materially reduces the amount of stock in circulation and the leakages which always accompany large stocks.

As a matter of fact, however, the studies available in larger hospitals indicate savings from operating their own laundries to be from 30% to 60%, depending on the size of the plant and the ability with which it is managed. The last three or four years have seen developed machinery and processes which make it possible for the small hospital plant to do only three or four hundred pieces nearly if not quite as efficiently and cheaply as those in the larger hospitals.

The four points to be considered in the installation and operation of a hospital plant are personnel, location and equipment, supplies, and processes. In the smallest plant, suited for hospitals of 50 to 75 beds, it will usually be found that with the janitor or engineer to run the washer and extractor and even the flat work ironer one woman with perhaps some part time help will be able to do all the hand ironing. The introduction of powdered soap, doing away with the old process of soap cooking, and of the cold starch process, making necessary only one loading of the washer and one extraction, and the use of the press has so reduced the amount of labor that the amount of work accomplished by a small personnel is really surprising.

All who have had experience agree that the best location for the laundry is in a separate building, but as this is hardly feasible for the small hospital, it is suggested that it be located close to or in connection with the boiler room, thus making it possible for the engineer to properly supervise the machinery or to assist in its operation. Likewise the boiler room usually is sufficiently well isolated from patients' rooms that this location will also prevent the noise, steam and odors becoming a cause for complaint on the part of patients. But wherever located, the space must be sufficient in floor area to provide wide passage ways for the handling of baskets, ample ceiling height, ventilation and light.

The equipment hardly can be discussed in detail in this report but suffice it to say that a washer, an extractor and a flat work ironer are the basic units and can be secured in sizes to

meet the requirements of hospitals as small as 25 beds. One of the first units to add after these three is a press as it is at least four times as efficient as hand ironing on those articles to which the flat work ironer is not suited. Unless a large amount of personal work is done, very little hand ironing will be necessary. For such as is done there should be provided electric irons, preferably two for each board.

All machinery should be equipped with proper safety appliances, all belts and pulleys well housed in with heavy screen frames, or better still the individual units should have individual motor drives as this allows greater freedom in placing machines and is a real economy in a small plant by reason of the fact that the different machines will not likely all be needed at one time.

In the larger laundries, many accessory machines will be of service. The first to be mentioned is the dry room tumbler, judicious use of which greatly reduces the necessity for a dry room and at the same time makes possible the renovation of pillows and woollens much more satisfactorily than they can be done outside. After this comes dryers, collar and cuff machines, neckband machines, dampeners, rotary edgers, bosom presses, collar shapers, conveyer dryers, etc., all of which it would be out of place to discuss here, as the laundry which needs them will need to give the subject much deeper consideration than is possible at this time.

The matter of supplies is the one which least consideration is usually given and which at the same time is the source of much dissatisfaction though often unsuspected, and the first and most important supply is water. The nearer we can get to the old rain barrel, the happier will be our lot. Most city water supplies are not only hard in their natural state but are chemically treated to make them fit for human consumption. The lime contained in them unites with the soaps to form an insoluble lime soap which permeates the thread and produces that harshness which makes the linen so disagreeable to the skin and at the same time makes the fabric brittle and very materially decreases the life of the linen, because after all the real wear and tear on linen is in the laundry and not in use. Hard water likewise wastes supplies. According to one authority, for each degree of hardness there is a theoretical soap waste of 1.3 lbs. per thousand gallons. As the average washer takes about fifty gallons, it is evident that with water of twenty degrees of hardness it amounts to a waste of 1.3 lbs. per washer load, and water of twenty degrees hardness is not unusual at certain seasons of the year. A further difficulty with hard water and the resultant insoluble soaps is a surface deposit on the linen, producing a

dirty gray tinge and the so-called soap specks. The best remedy for this is in some form of water softener of which the zeolite type or some modification of it is easily the most efficient. The economy following the installation of a plant of this character will apply in the binder room in equal degree as in the wash room, and will be especially noted in the domestic hot water supply. One commercial plant claims a saving of 53% in their soap bill over a period of eight months.

SOAPS. Soaps are a chemical compound of an alkali with a fat, with glycerine as a by-product. For laundry purposes, chip soap has held the field for some years and many reliable brands are on the market. But even the reliable brands vary widely in water content, running from 12% up to 20% and if adulterated even more. The water does not particularly harm but the careful buyer will object to paying soap prices for it. In the more recently introduced powdered soaps the moisture may run as low as 8%. In any case, it is well to test purchases for moisture occasionally, which can be done by weighing out a given quantity, say ten pounds, dry for 24 hours in the dry room or even in a warming oven or hot air sterilizer and re-weigh. Divide the initial weight in ounces into the difference between the weights before and after drying in ounces and the quotient will express the percentage of water. Care must be exercised to take the sample from the middle of a freshly opened barrel as the soap near the surface always loses some of its water by evaporation, and would thereby give a false result. Salesmen have many modified soaps to present and many claims for them but there is no reason for more than one standard soap in any laundry and it often happens that they have simply modified the soap with soda and are selling the soda at soap prices. The introduction of a successful powdered soap has made possible the elimination of the soap cooking and the nasty mess that usually surrounded the soap tanks. This has not only resulted in economy of time, space and material, but is an economy of soap as the washermen will usually adjust the amount used more carefully if given a comparatively small scoop and required to mix the soda with the soap as he puts it in the washer.

ALKALI. Contrary to general belief, alkali has no detergent action of its own and is used only on account of its power of increasing the detergent action of soap. The only alkali generally used is sodium carbonate, though some hospitals recommend trisodium phosphate as a "break down" though its value is questioned and has not been demonstrated in laboratory tests. There are, however, other reasons for the use of alkali: (a) The

presence of soda decreases the tendency to the formation of calcium soaps, (b) certain dirt on soiled linen contain acids which the alkali will neutralize, and (c) some greases contain free fatty acids which the alkali will convert into soap, thus aiding the detergent process.

As one pound of soda ash is equivalent to four pounds of trisodium phosphate, economy would suggest that it not be used until of proven value.

BLEACHES. Bleaching is either a process of oxidation or reduction. The almost universally used sodium hypochlorite of javelle water is undoubtedly the best and in hospital work is particularly useful on account of its bactericidal action, it being best described as an impure Dakin's solution, and the identical material with which Semmelweis 80 years ago laid the foundation of hand disinfection in obstetrics, reduced his death rate from puerperal fever by 90%, won for himself a lunatic's cell, and for motherhood practical immunity from the scourge which in his day attacked every tenth mother. It is not necessary to use bleach on hospital linen at every laundering and when it is used, it should be rather light, not over two quarts of javelle water to a standard washer with six inches of water in the wheel. Javelle water is prepared by the solution of 10 pounds of bleaching powder (calcium hypochlorite) and ten pounds of soda ash in 30 gallons of water. Stir well and allow the calcium carbonate to precipitate and then dip or better siphon off the clear supernatant liquor.

SOUR. There are two reasons for the use of a "sour" in the laundry process. First, to neutralize the alkaline materials remaining from preceding processes and second, to remove certain stains which respond to acid but not to alkali. The most satisfactory sour is acetic acid used in the proportion of three to five ounces to a washer with six inches of water. If there are iron stains in the fabric, the addition of oxalic acid in the following manner: Dissolve one pound of oxalic acid crystals in one gallon of hot water. For use, use equal parts of the oxalic acid solution and of 36% acetic acid, two to two and one-half ounces of each to a standard washer load.

BLUEING. Blueing is used to cover up the grays, a process which with softer water and more carefully controlled processes is gradually becoming less and less necessary. Blues are of two types—the insoluble, which are simply an exceedingly fine insoluble powder like ultramarine or cobalt blue and act by simple deposition on the surface of the thread, and the more common soluble or aniline blues, which are actually absorbed by the fabric. The aniline blues have from four to thirty-six

times the blueing power of the insoluble blues and have the added advantage of being more easily adjusted to the required tint.

STARCH. There are two types of starch process in general use, the one known as the cold starch process being in rapidly growing favor by reason of the fact that it eliminates the starch cooker and eliminates one extraction process. A satisfactory grade of starch will be supplied by any reputable supply house.

PROCESSES. When the soiled linen is received in the laundry, it should first be sorted according to the character of the fabric, size of pieces and character of soiling. The following list gives a fair idea of classification: Bed linen, dining room linen, operating room linen, uniforms (white), uniforms (colored), shirts and waists, collars and cuffs, sox and stockings, underclothing, overalls, colored aprons, etc.

All blood stained linen should be given a preliminary soak in lukewarm water, not over 100 degrees, after which it may take the course of all white work.

(1) 5 minutes, lukewarm, 3 inches of water in cylinder after goods are saturated.

(2) 15 minutes hot suds, 3 inches water, sufficient soap to make six inches of suds on top of water. If powdered soap is used, add one part soda to three parts dry soap. If water is fairly soft, increase soda according to hardness of water.

(3) Repeat 2.

(4) 5 minutes hot rinse, six inches of water.

(5) Repeat 4, adding two quarts of javellé water.

(6) 5 minutes hot rinse, 6 inches of water.

(7) Repeat 6.

(8) Warm water six inches, add four ounces sour and run ten minutes, blue 10 minutes.

(9) Cold water to cool goods, five minutes. If cold starch process is used, the starch may be added directly to this load and run at least five minutes after addition of starch.

(10) Extract.

In loading extractor care must be used that articles are not entangled, as entangling leads to tearing of goods. Also, extractor must be evenly loaded so that as it runs there will be no vibration. Neglect of this precaution is not only injurious to the machinery but dangerous to the operator. Safety covers should always be used. If water of good quality is used, it is not always necessary to use blueing. In washing colored goods, temperatures above 120 are injurious to the colors. All flat work can be taken direct from extractor to flat work ironer and the same applies to such work as is ironed on the press. Articles that require ironing by hand, however, must partly be dried first.

This may be done in the open air, in which case they will require dampening. However, if a small tumbler is available, they may be tumbled partly dry and can then be taken directly to the ironing boards.

This subject cannot well be dismissed without word as to linen accounting methods. Many methods have been devised, some simple and some intricate. In general it will be found that the less forms you have the more practical will be your system and the more closely you adhere to some form of exchange system in issuing clean linen, the more satisfactory will be your results. One very satisfactory system is to use a slip the form of the ordinary commercial laundry slip. The name of the various articles are printed at the left, the right being occupied by three blank columns headed respectively "Your count," "Laundry count," "Issued." The person or department sending the laundry fills in the first blank column and retains a copy. On arrival at the laundry, the bundle is counted and sorted and the indicated entry made in the second column. If this agrees with the first column, the goods go on into work. If, however, they do not agree it is put aside and the sender notified or put into work as circumstances indicate. As soon as corrected, the record is transcribed into the regular laundry record book or better on to a daily report sheet. The slip then goes to the clean linen room and becomes a requisition for clean linen though the amount issued may be increased or decreased by proper authority. In any case the completed slip remains in the linen room as a record and the individual to whom the bundle is delivered has the duplicate to check against. This system is sufficiently flexible to meet changing conditions and is sufficiently accurate and detailed for small hospitals. Large hospitals may desire a more detailed system though this system has worked successfully in one hospital of two hundred beds whose employes are well below the average in education and accuracy.

In conclusion, your attention is invited to the bibliography which will be published with this report and mimeograph copies of which may be obtained at the booth of the Laundry Committee on the exhibition floor. Particular attention is invited to the "Manual of Standard Practice for the Power Laundry Wash-room," issued by the Laundry Owners' National Association, which is based on the researches conducted by the Mellon Institute of Pittsburgh, acting in behalf of the above association.

(Signed) W. P. Morrill, M. D., Chairman,
George F. Stephens, M. D.,
Rolla L. Henry, M. D.

PRESIDENT O'HANLON: I am sure you will agree that this is a very valuable and instructive contribution to our knowledge of laundry machinery and the proper conduct of the laundry, and I am sure that every one of us who has a laundry in connection with our hospital will agree that it is one of our real problems. This report of the Committee is open for discussion, and, as Dr. Morrill has said, any questions you might like to ask perhaps could better be answered at the booth.

THE HOSPITAL PROBLEM IN RELATION TO MODERN MEDICINE

By Dr. Willard C. Stoner, Director of Medicine,
Saint Luke's Hospital, Cleveland, Ohio

The advances in scientific medicine and the rational application of the same have been phenomenal in the last twenty years. These advances have been of a nature that demands hospitalization very largely for the complete realization in medical practice. The old ideas of medical practice are being supplanted by the new. It is obvious that, under most circumstances, home conditions will not permit of improvised hospital facilities. It is impossible to bring hospital facilities to the home, so that it has become necessary to hospitalize more and more in order that we apply in diagnosis and therapy that which modern medicine affords. The well-trained surgeon no longer performs surgical operations in the home. The well-trained internist no longer attempts to diagnose obscure conditions in the home, much less manage them. The well-trained obstetrician no longer cares for the expectant mother in the home, which too often may be at the expense of both the mother and child. The public is being educated and appreciates the importance of hospital care.

THE HOSPITAL A WORKSHOP

The hospital no longer stands in disrepute as a place to go to as a last resort which generally ended in death. The hospital is being recognized as a workshop where there are facilities that represent the last word in scientific medicine and workers who represent the best in training and skill that modern medicine affords. The public is coming to realize that a hospital is a community problem, that it shall have community support and shall serve everyone—the poor, the rich and the great middle class on whom a great hardship has come by reason of the tremendous cost of medicine if it is not afforded them by an institution at a cost which shall not make it prohibitive. The

public is coming to realize that hospital practice by the medical profession shall not be abused, that the hospital shall not exist for a few select physicians of a community, but shall be accessible to all well-trained medical men.

It is obviously unfair to the young man who has thoroughly trained himself in modern medicine and satisfactorily met all the prescribed standards of qualification to be turned loose in a community and try to practice that type of medicine which he has been trained to practice without hospital facilities. It must ever be true that a certain per cent of illnesses do not require hospital care; this is especially true of the acute illnesses where the diagnosis is obvious and definite and where the course of the disease is likewise definite. Under such circumstances, good care can well be improvised at home and the well-trained physician who does home work suffers no handicap other than that of time in carrying into the home that necessary medical attention.

We had it well demonstrated in the Army Service in large numbers that a large per cent of acute illnesses require no particular medical attention other than good care, encouragement of elimination and a proper diet. Nature is a good doctor and has more specifics for the cure of disease than is generally credited.

We must come to look on a hospital as a complete workshop, that is, not a place to hospitalize bedridden patients alone for diagnosis and treatment, but as a workshop for diagnoses and advice as to treatment in the ambulatory case, such as is being done in our free clinics and part-pay clinics. The same principle in diagnosis must be applied to all material. It is a well recognized fact that present day medicine is organized to care for the destitute and the very well-to-do, but the great middle-class is unable to buy modern medicine. Fortunately, the numbers whose conditions demand this type of medicine are in the minority so that society suffers only in a limited way.

CO-OPERATIVE CLINICS

The development of co-operative schemes of work, that is, the co-operative clinics such as are being developed all over the country, demonstrates the advantages of this complete workshop where the obscure, acute, sub-acute or chronically ill may go for diagnosis and treatment. Obviously, this affords the advantage of complete findings in an individual case with a single fee which is supposed not to be prohibitive to the individual. Unfortunately these private schemes of work represent

a commercial basis as most medical men are not philanthropic to the extent of rendering service for which they do not have a reasonable return. These co-operative clinics have their advantages and disadvantages. The outstanding advantage is completeness of work without a prohibitive fee and the outstanding disadvantage is the lack of personal interest in the patient and the failure properly to evaluate findings. Obviously, these clinics do a certain amount of unnecessary work in order that necessary work be not overlooked. The complexity of modern medicine demands this sort of practice, hence the co-operative clinic is here to stay, but it can never represent the whole of medical practice and, if it did, it would be detrimental, robbing a large per cent of medical men of individual initiative and resolving medicine into machine methods.

If we accept that the hospital represents a complete workshop for the hospitalization of cases, and there is a great advantage in having such a workshop in order that we apply modern scientific medicine, then we must accept that the hospital shall furnish the other portion of the workshop, namely, the diagnostic clinic where means are afforded for a proper diagnosis of all diseases such as our free clinics represent. Why shall we not look to the hospital as the complete workshop where all cases difficult of diagnosis shall go and be investigated at a cost prohibitive to no one, where all worthy practitioners of medicine may take their cases for diagnosis and then have advantages of suggestions as to proper therapy. Life and health should not be made prohibitive to anyone and medical practice should see to it that it be within the reach of everyone in so far as scientific medicine affords. Many of the co-operative clinics compete with the whole profession, that is, they not only take cases for diagnosis, but also for treatment. This will tend to lower the standard of medical practice, as it will take from the worthy man in general practice his best clientage and not afford him hospital facilities.

Hospital practice is a great incentive to do good work. Standardization of hospital practice such as is being done by the American College of Surgeons is tending to elevate the standard of medicine generally. Fads, quackery and sectarianism will thrive less when the public generally is educated as to the value and limitations of modern medicine. The facts of modern medicine rationally applied will bring a proper respect for medicine, greatly alleviate human suffering, prevent disease and eliminate a great waste. The hospital must ever be the important means of making these facts accessible to the public.

AMERICAN HOSPITAL ASSOCIATION

NEED OF RURAL HOSPITALS

The establishment of hospital facilities in the rural communities must be the rational solution of medical practice in these districts. The investment in the modern training in medicine is too great to make rural practice inviting today. Better conditions must be the solution. Good roads and our present means of transportation make the establishment of hospitals in the larger towns of rural communities practical. It will be less and less necessary for the acutely ill to be taken to the larger centers for diagnosis and treatment, which is often at the expense of the well-being of the patient.

The hospital must have a larger responsibility in the education of nurses who shall enter the fields of preventive medicine and public health nursing. The hospital must emphasize more and more the importance of regular, complete examinations for the purposes of detecting the development of diseases that are insidious in onset. It must afford health clinics where the facts of medicine may be obtainable to everyone. The story of disease would be quite a different one if diagnosis were made early always and the proper therapy applied. The hospital must furnish the same workshop that the industrial world furnishes for the man made machine, e.g., the automobile motor. May we not think it reasonable to have inspections of the human machine in the same way? Modern medicine affords a means of diagnosing early. Disease diagnosed late generally represents either indifference on the part of the patient or a failure to properly apply the means that modern medicine affords, or perhaps both.

ORGANIZATION AND CORRELATION OF HOSPITAL SERVICE

The satisfactory work of a hospital depends in part upon proper organization and correlation of the administrative, professional, nursing and social service functions of the hospital. It is well to have the professional service divided into the two great groups, viz.: medicine and surgery with a director of each division. Under each division shall be classed the departments which by nature of work shall be determined either medical or surgical. It is well to have the director of medicine serve as head of the Department of General Medicine and the Director of Surgery as head of the Department of General Surgery. Each department under the medical or surgical division shall have a department chief who shall be directly responsible to the division director.

A medical council is made up as follows, viz.: Superintendent of hospital, the director of medicine, the director of

surgery, and a fourth member who shall be selected by the department heads not including general medicine and general surgery, and shall serve for a period of one year. The medical council shall determine or initiate all matters of policy and standards of professional efficiency which shall be subject to the approval of the board of trustees. Upon invitation, a representative of the professional services chosen by the medical council shall meet with the Executive Committee of the Board of Trustees.

The medical council meets weekly to consider all matters that have to do with the professional services of the hospital. The professional services of the Out-Patient Department are organized in the same manner as professional services in the hospital. All visitants to the hospital have professional responsibility in the Out-Patient Department. The department chiefs are directly responsible for the type of service rendered in the Out-Patient Department. The superintendent of the hospital directs the administrative function of the Out-Patient Department, which work is under the supervision of the Director of the Out-Patient Department.

The medical personnel of the Out-Patient Department has access to the open ward cases and certain responsibility in the routine care under the direction of the department chief.

The Out-Patient Department is open from 8:30 a. m. to 10 a. m., which gives the medical staff the advantage of completing their hospital work early in the day and does not necessitate their return to the hospital for an afternoon clinic. The Out-Patient Department is patterned after a semi-private clinic and has facilities and equipment to make it a complete work such as modern medicine affords. The work in the medical and children's clinic is done by appointment which enhances the appreciation and co-operation of the patient. Time is thereby controlled and loose, hurried up, incomplete work is not done. All medical men, either staff or non-staff, must limit their hospital practice to one specialty in order to encourage the highest standard of hospital practice.

The Social Service Department determines the social status of every patient applying to the Out-Patient Department for professional service. The Medical Clinic Department determines all diagnoses and classifies accordingly. The Social Service Department keeps a follow up system and, on failure to report at a stated time, a card or letter is mailed or, if necessary, a home call is made. A daily report of all ward entries is furnished the Social Service Department, likewise a report of all discharges.

Reports of the work of the Out-Patient Department, the House Staff, the Nursing Service, are made to the Medical Council weekly.

The Medical Staff meets monthly, or oftener, for the purpose of holding clinics and discussing matters of professional efficiency. Thus the personnel of a modern hospital is organized into a great working force having in mind a single purpose, the rendering of skilled professional care, and emphasizes at all times humanitarian side of scientific medicine.

Hospital treatment of the sick must ever represent skilled, sympathetic care, which must never be at the expense of the patient's rights arbitrarily taken from him because of undue authority on the part of the nurse or physician.

In conclusion, let me emphasize the great need of amplifying hospital facilities everywhere; that the hospital must be made a complete workshop accessible to all reputed physicians; that it must represent all that modern medicine affords in preventive medicine, diagnostic medicine, curative medicine and social service; that it must be an institution of learning where nurses, physicians and social workers shall be trained in every phase of scientific medicine; that it must render service to everyone at a cost that shall never be prohibitive; that the institution shall realize, as the medical profession realizes, according to responsibility and service rendered.

PRESIDENT O'HANLON: I am sure we are under great obligations to Dr. Stoner for his interesting address, and it is also interesting to get the point of view of the attending staff of the hospital. Six years ago the hospital with which I am connected in New York City reorganized on practically these lines; the Board of Trustees are representative citizens who serve without any salary and have the fullest responsibility and authority for the administration of the hospital. We were affiliated at that time with four medical colleges (now only three, one having closed) and in spite of a good deal of opposition the trustees succeeded in reorganizing along exactly these lines, choosing from among the number a medical director and a surgical director. I wish to say, having had experience in both forms of organization, that the administration of the hospital has gone much more smoothly and satisfactorily and I am sure the patient has had much better attention since the reorganization. It is not possible, of course, in every hospital, be it private or public, to reorganize. However, I am sure if you take back to your hospitals the methods that have come to us from Cleveland this morning, much can be done; at least you can give the attending staff something to talk about.

REPORT OF THE COMMITTEE ON GENERAL FURNISHINGS AND SUPPLIES

The Committee on General Furnishings and Supplies have made a careful survey of the section of the Exhibition allotted to them, and in the few minutes at our disposal, will point out our conclusions.

To meet the demand for a hospital bed of rigid construction, firmly locked and capable of withstanding hard usage, with casters of such size and movability as to allow ready transportation of the bed from one part of the ward to another when desired, there have gradually been several satisfactory beds constructed. These are now supplied with adjustable springs, modifications of and improvements on the Gatch type of frame. Of these, some are controlled by hand, others are readily adjusted by cranks or ratchets.

The tendency to finish the metal bed frames in various colors to correspond with the general color scheme of the room has been a gradual development.

The construction of private wards and rooms for private patients, has created a demand for special room equipment which is now being supplied by complete room units in metal, including beds, cabinets, dressers, tables, wardrobes and other pieces.

Monel metal has also become a close competitor with other metals in the construction of table tops.

Many superintendents have furnished their private rooms, at least in part, with wooden furniture and it might be of interest another year if an effort were made to secure a few exhibitors of high grade wooden furniture.

The average hospital mattress is subjected to unusual wear, and should be of hygienic construction covered with durable material and capable of being sterilized. The comfort of the patient should also be considered. In the selection of the mattress, as in the selection of all other equipment, the better the grade purchased the longer it may be expected to serve. It is believed by many that curled South American horsehair comes the nearest to fulfilling the above requirements. On the other hand, very satisfactory reports have come from the users of other material.

Pillows should be purchased with the same care as other supplies. Goose feathers are generally conceded to make the best pillows and these should be covered with high grade ticking.

Until recently, there have been but few high grade casters on the market. In the selection of a caster, several points should be considered. The wheel should be ample to permit free movement and the shank should be sufficiently strong to withstand

the stress and strain to which it is subjected and uphold the weight applied to it. The bearing should be ample to allow the caster to swivel readily. If equipped with rubber tires, these are more satisfactory if constructed in one piece, and ease of replacement is desirable. Several such casters are now on the market.

The purchase of hospital sheetings, pillow-cases, toweling and blankets requires careful study. Several of the exhibitors with whom we talked have urged that the hospitals make a greater effort to standardize their supplies, in order that in requesting competing firms to submit bids they may all be judged on an equal basis.

Frequently a piece of cotton goods of apparently strong texture will be found to contain a filler. This may usually be detected by rubbing a piece of the cloth between the hands, when the filler will dust out, leaving a much inferior surface.

It is well to adopt a uniform size for pillow cases, sheets and towels. Not only is this essential in order to obtain uniform bids from dealers, but also that the same sizes may be encountered throughout the institution. It is obvious that if a certain size is ample at one time, the purchase of a larger size should be avoided.

Standardization of all equipment and supplies should be carried to the greatest practical degree. This may be accomplished by a careful study of the needs of the institution and the selection of the best articles to fill that need.

The construction of special equipment entails additional expense and delay in delivery. If, on the other hand, definite standards are established, the manufacturers can turn out a smaller variety of goods, the dealer may reduce the amount of his stock, and the cost to the consumer is correspondingly lower.

It seems quite possible that the American Hospital Association will eventually believe it incumbent to standardize many types of articles in hospital use.

In our examination of the various exhibits, we have been impressed with the earnest desire of the dealers to be of service to the hospital representatives. A convention of this type affords one of the best opportunities of becoming acquainted with the various types of hospital equipment, of watching the progress from year to year, and of determining what equipment will best supply existing needs.

At a recent convention in one of the neighboring cities it was the opinion of the exhibitors that the superintendents did not spend as much time in the examination of the displays as they could profitably have done, because they did not wish to take up the time of the exhibitors without in return making a pur-

chase. We wish to assure you that from the exhibitors point of view, the filling of orders is of secondary consideration. They welcome the opportunity to show you their products and to help you solve your problems.

In conclusion, we recommend to your careful study the entire exhibit. Those of you who are interested in general furnishings will find beds and springs meeting all requirements, cribs, mattresses, pillow, textiles, garments and furniture of excellent quality, and on all sides an exhibition of high order.

(Signed):

Harold W. Hersey, Chairman,
K. H. Van Norman,
Louis H. Burlingham.

Committee.

REPORT OF THE COMMITTEE ON CLINICAL AND SCIENTIFIC EQUIPMENT AND SUPPLIES

In the preparation of a report such as this, embodying as it should a very general survey of the field of clinical and scientific equipment, one is faced first of all with one great outstanding fact. The multiplicity of similar types of equipment is most striking. It certainly does not require an expert to run through the various catalogues of instrument and supply houses and note the very marked similarity of many items, not alone in comparing the products of various manufacturers, but even in the equipment or instruments of one manufacturer. It is almost impossible for every manufacturer to carry in stock an adequate supply of every item listed in his catalogue, and in most cases the equipment is made or assembled after the receipt of the order.

In other words, practically every hospital order for equipment is "special work." This situation must be reflected in the price, and in no way can this situation be credited to the manufacturer. The individual hospitals themselves are responsible for the large variety of similar types of hospital equipment and apparatus.

The remedy for this condition of affairs regarding hospital equipment likewise lies within the grasp of the various individual hospitals through the medium of that much abused term "Standardization." Of course, it must be admitted that standardization of equipment has its limits of practicability, and that this limit is sooner reached in scientific and clinical equipment than in most any other general classification of hospital supplies. So, keeping that fact in mind, there certainly are

basic standards that should be set for hospital equipment which would give the groundwork so essential in the selection of equipment.

Please notice that we do not advocate rigid, detailed specifications to which the needs of every hospital must be adapted, but we most certainly do advocate standardization of the basic requirements—for example, we do not care to recommend to any hospital any particular make of sterilizer, or to advise as to particular type. But we feel that we should render such aid as we can in determining the essential basic requirements that must be met by any sterilizer in order that it most satisfactorily performs its work. On the basis, then, of these basic standards the hospital executive can build his requirements for his hospital. Then he must determine the particular make and type of apparatus that most satisfactorily meets these requirements.

The logical correlary of this feeling regarding standards for scientific and clinical equipment is to urge one thing most strongly to everyone contemplating the purchase of any such equipment. That is, we wish to emphasize the necessity of a very careful and detailed study of the needs to be met by the purchase of this equipment. By that statement we mean the needs as they exist in the hospital in question, with all the factors entering into the hospital composite being considered and their relation and values being determined. It is the rather generally accepted plan for the hospital superintendent, in such cases, to familiarize himself, to a certain extent with what other hospitals are using in the way of equipment and then to select the apparatus that most closely meets his need as he sees it. To do this without familiarizing himself with the background obtaining in every hospital he investigates cannot lead to the most intelligent buying of equipment, and equipment that will exactly meet his needs. Please do not understand me to say that the hospital executive should not see other hospitals and familiarize himself with what they are doing and the equipment they are using, for we do not mean that in any sense of the word. But we most certainly do want to urge that all inquiry as to equipment include an inquiry into the factors composing the situation leading to the purchase of such equipment. It is more valuable to know the essential features of the background of the equipment than to know that X hospital uses so many pieces, so large, of such and such an equipment.

Since we feel that it is impossible to intelligently form an opinion as to the equipment needs of a hospital without a knowledge of background, we could not conscientiously prepare in advance any standardized lists of equipment for any hospital.

Such lists have been prepared and are available, and probably serve as a very general guide for a hospital in equipping a new hospital unit, but we doubt very much the desirability of including such lists in this report. A hospital is a composite of human beings trying to render humanitarian service to other human beings, and as such is not susceptible to rigid standardization in every particular any more than is the individual. The only way to judge the needs and the means of meeting those needs is by careful, painstaking study in the light of all the background affecting those needs. May we not call this background the "hospital composite?"

The procedure of the hospital executive determining the character and quantity of purchases, after a complete adjudication of all contributing factors, is basically sound and practicable. In the purchase of many items of scientific and clinical equipment, one of those factors of "the hospital composite" assumes a very great importance. That factor is the fact that in these items are many that are very highly specialized and subject to changes in technique in diagnosis and treatment. In the interests of harmony and efficiency the director or superintendent must be prepared to go to reasonable lengths in trying to satisfy his professional staff. It may perfectly well be true that there should be standardization of such items of equipment, but the first step must of necessity be the development of a harmony between the executives and the staff and a willingness on the part of both to consider the proposition on its merits. The very real economics that can be effected by a larger use of standardization instruments and equipment are obvious. The manufacturers of surgical equipment would certainly operate more efficiently, with the consequent reduction of price, if they were relieved of the necessity of carrying in stock or in patterns and special dies, etc., the enormous reserve they are forced to carry on account of the diversified demand for instruments.

Another complicating factor in the purchase of surgical supplies is the relatively short period of usefulness of many special instruments and apparatus, due to a rapid changing of technique or other similar factors. The hospital executive must be prepared to discard for this reason many apparatus and many instruments still mechanically perfect, and purchase many new things, if his hospital is to be kept to the point of greatest efficiency. In order to do this intelligently there must be a close coöperation between him and his staff, based upon mutual confidence. The staff members are naturally in a position where a knowledge of the very best and most modern clinical and scientific equipment is part of their professional knowledge. The

hospital director must draw on this fund of information if he is to most intelligently keep his equipment to the point of greatest efficiency.

In considering this report it is very well realized that it may sound contradictory in many phases. First it points out the lack of standardization as the greatest difficulty in the field of hospital equipment and then proceeds to show standardization and specifications are impracticable. May I emphasize the fact that this contradiction is more apparent than real? We do urge standardization of all basic requirements, most strongly, and urge a greater and closer study of the individual problems presented by each hospital with a selection of equipment depending on these two factors. On the other hand we are convinced of the error of trying to fit the needs and requirements of every hospital to the specifications of any one without a careful investigation of the hospital composites of the two hospitals.

However, when we turn from a consideration of the items of equipment that must ultimately be used by the professional groups to the items that form part of the permanent equipment of the hospital, the situation is radically different. Steel furniture for example is susceptible to the most rigid specifications as to methods of construction, size of material, and thickness of metal, and finish. The fact that a hospital may care to have a distinctive type or style does not change this fact at all for these are features that are basic and should be observed in any furniture regardless of the type or style. A larger purchasing of standardized pieces will most surely result in a lowered cost with no change in quality due to quantity production, but it is up to the hospital man to determine the price he is willing to pay for a distinctive type.

As an example of what can be done in the way of detailed specifications for some of these items, may I refer to the specifications for wheeled equipment, and the basic specifications for sterilizers that have been prepared for the Cleveland Hospital Council? These specifications are too detailed to outline here but I may say that they specify to an exactness the construction of wheeled equipment. The purchase of any wheeled equipment on these specifications would almost guarantee the purchaser against apparatus defective in design or material. There is a very limited number of copies of these specifications available for distribution to people who are interested. The same is true of the sterilizer specifications.

In case anyone is really interested in these specifications

we will be very glad to show them and discuss the background that led to their preparation.

In conclusion may I summarize the main points we have tried to make in this report?

First: The responsibility for the very great variety of hospital equipment of similar nature rests largely with the hospitals themselves and the responsibility for changing this situation also belongs to the hospital.

Second: The first requirement in the intelligent purchasing of hospital supplies is a thorough knowledge of the needs to be met by those supplies.

Third: Basic standards but not detailed specifications should be set up by some group competent to know, these standards to furnish the groundwork for considering the particular needs.

Fourth: A knowledge of the "hospital composite" in other hospitals is more important in selecting equipment than the knowledge of merely what they have in the way of apparatus.

Fifth: Lists of equipment submitted without any knowledge of the "hospital composite" are of very little value.

Sixth: In purchasing surgical and laboratory supplies the superintendent must rely on his visiting staff for their judgment and must foster mutual confidence.

Dr. A. B. Denison, Chairman,
Asst. Director Lakeside Hospital, Cleveland, Ohio.

Dr. A. E. Haywood,
Supt. General Hospital, Montreal, Canada.

Dr. John D. Spellman,
Supt. Touro Infirmary, New Orleans, La.

PRESIDENT BACON: If there is no further business, I will now declare the meeting adjourned.

GENERAL SESSION

September 28, 1922, 2:15 p. m.—Round Table—Mr. Asa Bacon
in the Chair.

CHAIRMAN BACON: The facts about the administration of our various hospitals are interesting and worth while if for no other reason than that they help us to understand what the other fellow is up against. Those who are not members of the American Hospital Association and who are not frequently in dealings with the Association—through which a broader knowledge of the functions and problems of hospitals is acquired—that individual is at a distinct disadvantage in handling his various problems to the best interest of his institution. Frequent association with groups of people who have special interests is likely to develop similar interest in the persons associating with them; therefore sessions of this character are beneficial to us all.

What percentage of the hospitals in the Association allow osteopaths to care for patients, and under what condition, if any, are they allowed?" Dr. W. P. Morrill will answer.

DR. W. P. MORRILL, Shreveport Charity Hospital, Shreveport, La.: This question being a specific one as to what percentage, I fell back on the old ruse of a questionnaire in order to get a specific vote of the institutional members of the Association. I got 300 replies. 250, or 83 $\frac{1}{3}$ per cent, do not admit osteopaths at all; 34, or 11 $\frac{1}{2}$ per cent, admit osteopaths under the supervision of what one superintendent calls a "real physician." Nine, or three per cent, admit osteopaths independently. Two admit anybody at all, and five dodged the question. I think that gives the answer to the question, but the comments of a few of them may not be without interest. I will read a few of them.

CHAIRMAN BACON: That is a very interesting report, and I would like to have a further discussion of it.

DR. JOHN NEVIN, Superintendent of Jersey City Hospital, Jersey City, N. J.: I might relate an incident that happened in New Jersey a year or a year and a half ago. A letter was sent by two prominent osteopaths to the mayor requesting that a ward in the Jersey City Hospital be set aside for osteopathic patients. The letter was referred to me as Medical Director of

the city and my reply was: "I will say that every necessary phase of medical activity is covered in the present hospital scheme and I must decline to consider anything that might interfere with that."

MR. S. A. STEPHAN, Protestant Hospital, Columbus, Ohio: I would like to ask whether there are many hospitals that admit the homeopaths and osteopaths to practice in their hospitals both medicine and surgery, and are they congenial in doing so?

MISS MARTIN, Abington Memorial Hospital: I have a complete staff of both schools, and they get along very nicely together.

MISS GRINDELL, Franklin Square Hospital, New York City: I can say the same for my hospital.

CHAIRMAN BACON: Where a nurse is trained in the giving of anesthetics and a death results directly from anesthesia, who is held legally responsible for this? Can an institution chartered as charitable, not for profit, be sued for such a mishap? I have asked Dr. E. T. Olsen, Superintendent of Englewood Hospital, Chicago, Illinois, to answer this question.

DR. E. T. OLSEN, Superintendent Englewood Hospital, Chicago: It is not necessary to repeat the question, and, rather than have a long discussion, I have taken the liberty of summarizing and abstracting the summary so as to make it very brief. The position of the anesthetist must be viewed—and I am referring to the nurse anesthetist who is more commonly used, and in my opinion better used than any other, and it must be viewed, first, from three angles; either as the employee of the hospital, the employee of the doctor or as a free lance giving anesthetics for a fee, as the English say, "on her own."

As an employee of the hospital or of the doctor, she is an agent and not a principal, and either the doctor or the hospital are responsible for all of the acts of their agents, legally. The doctor and the hospital are presumed, by the law, to possess ordinary skill, knowledge and judgment in the treatment of disease conditions. This implies also an assumption or knowledge of the possession of a requisite amount of skill for the performance of these functions of the various employees by such employees. Anesthesia is a part of the operative procedure conducted under the direction either of the physician or some employee of the hospital acting in conjunction with the operator. The physician, ordinarily—and there have been cases of course where the hospital has been joined with him—is held responsible for the operative procedure and the treatment of the case. The hospital is presumed to be and is held responsible ordinarily for the carrying out of the details of the treat-

ment ordered by the doctor. Proved neglect, either of commission or omission, on the part of one or the other, either the doctor or the hospital, or both, would render one or the other or both liable in case of suit.

In case of the anesthetist working independently for a fee, it would seem that she is still only the agent of the doctor for whom she administers the anesthetic, because ordinarily she is not employed directly by the patient, and even if she were she would still be subservient to the doctor's orders in the case, except so far as her special knowledge of anesthesia went. In case of a suit for a death due to anesthesia or said to be due to anesthesia, in order to fix the responsibility it would be first necessary to prove that death was due directly to the anesthetic, and most of us know that that is an extremely difficult thing to do; ordinarily it is only a contributing factor. The proper precautions having been taken in advance with regard to the examination of the patient, the determination of the kind and quantity of the anesthetic to be given would determine that more or less. If ordinary care, skill and judgment can be proved to have been exercised in this particular case, ordinarily no judgment should be rendered against any individual or the institution connected with the disaster. The only difficulty about that is that juries are temperamental and they do not always render a verdict in accordance with the actual findings in the case. We have had some experiences along that line that have been exceedingly interesting and amusing, but none having a direct bearing on a case of this kind; so it is not necessary to go into them; but I know something about juries.

So far as the second half of the question is concerned, any hospital or any individual may be sued. A hospital incorporated as a charitable organization or "not for profit," or one organized for profit, may also be sued. The supreme courts of some states, however, have held that no damages may be collected from such a charitable institution for alleged or real injuries incurred in the institution either as a result of something the doctor has done or something the hospital has or has not done, on the ground that it is a wrong and improper diversion of funds held in trust for other purposes. Supreme courts of other states, however, have held that damages may be collected from such institutions, regardless of how the funds were held or received; so that the question of the collection of damages assessed by a court would depend to some extent on whether or not there were any supreme court decisions in the matter. Mr. Test (who is unable to be here this afternoon) was also asked to discuss this question, and I have been asked to read for him a letter he re-

ceived from Dr. J. M. Baldy, Commissioner of the Department of Public Welfare of Pennsylvania, on the subject.

"My dear Mr. Test:

"I have before me your question, 'Where a nurse is trained in the giving of anesthetics and a death results directly from anesthesia, who is held legally responsible for this? Can an institution chartered as charitable, not for profit, be sued for such a mishap?'

"Let me answer the last portion of this question first, namely, any institution may be sued for anything. The question as to whether recovery can be made through the suit is an entirely different thing. Where it is legal for a nurse to give an anesthetic (I will define such a nurse, in answering the first part of the question) if all reasonable precautions have been taken by the institution through the nurse, she being an employee of the institution for this purpose, recovery could not be made any more than it could from a physician under the same circumstances. Any given question brought to test would undoubtedly be decided on the merits of the individual case, the questions being:

"(a) Was the nurse a known employee of the hospital for the purpose of giving anesthetics?

"(b) Had the hospital taken proper precautions in employing her to know that she was recognized as competent in the giving of anesthetics?

"(c) Did she take reasonable precautions such as are taken under similar circumstances by other hospitals?

"The question as to who is held legally responsible, the nurse or the hospital, is again a question which would undoubtedly be decided by the court on the facts. Was she especially trained in the giving of anesthesia and was she recognized as competent? Had she taken every precaution recognized as proper and as practiced under such circumstances? Was a proper examination made by the laboratory and a physician previous to the administration? I do not believe a charitable institution under such circumstances could or would be held responsible, all proper precautions having been taken in the employment of its employees. I believe the suit would resolve itself into an individual one of the nurse, and I do not believe recovery could be made through her.

"The State of Pennsylvania, under a decision of the Attorney-General's office, has ruled that a nurse properly and specially educated was acting within her legal rights in giving the anesthesia and that the institution was acting within its legal rights in employing her.

"As regards the other states than Pennsylvania in which it has been legally declared that the nurse under these circumstances has a right to give anesthetics, I think the results would obtain exactly as they would in Pennsylvania. In states in which such pronouncement has not yet been made the whole case would hinge, I believe, on the decision of the court as to whether it was or was not legal for the nurse to give the anesthesia. In states in which a decision has obtained that it is illegal for the nurse to do this, I believe that both the hospital and the nurse would be held responsible.

"I know of no case in which a decision has been rendered in an actual test case.

"Very truly yours,

"(Signed) J. M. Baldy,
"Commissioner of Public Welfare."

Mr. Test adds this note:

"The Supreme Court of Pennsylvania has decided that the funds of a charitable institution are trust funds and may not be diverted from the purpose of the trust, and therefore damages may not be recovered from them."

That is also the case in one or two other states—I do not recall just which ones—and I believe there are one or two states which require that anesthetics must be given by a licensed physician. In most of the states it is common practice, as we all know, to employ specially qualified graduate nurses for this purpose, and my experience, extending over a number of years, is that they are much more satisfactory and just as dependable as the average physician for this purpose.

MR. CLARENCE E. FORD, Superintendent, Division of Medical Charities, Albany, N. Y.: As there are many New York State hospital superintendents here, I wish to say just a word in reference to this matter. The New York State Board of Charities, with which I am connected, has recently asked from the New York State Attorney-General an opinion on this point. The Attorney-General has held that a nurse may lawfully administer an anesthetic only when under the actual supervision and direction of a physician or surgeon. In other words, the nurse is acting as assistant to the physician, who assumes responsibility for the operation and for her qualifications as an anesthetist.

DR. M. T. MACEachern, Vancouver, B. C. The Nurse Anæsthetist. This is a controversial subject in hospitals and medical practice today. My views may therefore not suit your way of thinking on this matter, but I am endeavoring to look at it in an unprejudiced manner. The subject impresses me from four standpoints, mainly: (1) The medico-legal aspect;

(2) Economy of such service as compared with expert medical anæsthetics; (3) Type of service rendered; (4) The anæsthetic from the patient's standpoint.

Let us for a moment discuss each and dispose of same if we can.

Firstly: The medico-legal aspect: There are not sufficient cases on record in this respect to deduce conclusions from court findings, and at the present time it is fairly universally believed that the nurse anæsthetist is recognized as a technical assistant to the surgeon, and the surgeon is responsible if anything goes wrong. It is generally recognized that the administration of an anæsthetic is the practice of medicine.

Secondly: From the standpoint of economy: There is no argument if the service is competent, for the salaries paid will be much less. If the service is incompetent it is costly at any price, on account of the indirect results from the patient's condition which may follow.

Thirdly: As to type of service rendered: It may be said definitely that a nurse, when properly and well trained, is usually good. Nurses make good technicians on account of their natural adaptability to technical procedures, having a fine sense of touch, giving a more interested and continuous service, and not so prone to distractions of attention during the act of administering anæsthesia, which might be said of the medical anæsthetist. A proper training means a special course in a good teaching department of from three to six months, followed by supervised experience up to a year. The prerequisites should be a capable graduate nurse of a recognized training school, with natural inclination to such a service, having as basic qualities patience, coolness, tact, initiative and resourcefulness, with knowledge of human psychology. She should have fundamental lectures in Anatomy, Physiology, Pathology, Neurology, Pre and Post Anæsthetic Care of Patients, with special stress on the clinical symptoms associated normally and abnormally with anæsthesia. In addition, of course, her lectures on anæsthesia in a technical sense. She should also have given at least fifty anæsthetics on major cases, and after all, supervised up to a year. This may seem a good deal, but it is only fair to all concerned and should be minimum.

Fourthly: What is the best for the patient? Any service in hospital or medical practice should ask this question as the fundamental or keystone to the answer. Do not minimize anæsthesia administration in your hospitals. I am skeptical about those hospitals which say they never have deaths from anæsthesia. This is a camouflaged statement. Anæsthesia to

day in many hospitals is totally hazardous. We must look upon it more seriously. Do not let medico-legal or economy aspects overshadow the question of service to the patient. What is the best thing for the patient? This is a good anæsthetic, where there is quiet and smooth induction, uniform and steady administration, best after-results free from excitement, nausea, vomiting of post-bronchial, parotid or other complications. To get this, therefore, we must have:

First principle: A complete physical and psychological examination the night before the operation. This is necessary to win the patient's confidence, give the necessary reassurance, study the case physically and mentally for guidance in the best application of anæsthesia.

Secondly: A quiet, smooth induction with as little fear, struggle or disturbance of physiological condition, such as pulse, respiration, blood pressure, color, etc., as possible.

Thirdly: A continuous, smooth, even, deep or surgical anæsthesia.

Fourthly: The use of a minimum amount of anæsthesia throughout.

Fifthly: A follow-up or check-up on past anæsthesia cases to:

- (a) Determine the efficiency of anæsthesia.
- (b) Prevent, as far as possible, after-effects, or treat them rationally if they arise.

Can these be done by a trained nurse?

No. 1: No. No. 2, 3 and 4: Yes. No. 5: No. (a) and (b) properly belong to a trained medical man who is specialized in this. The surgeon is not the proper person, for usually his examination beyond the lesion area is very limited, superficial or not at all. He is not, and probably has never been a close student or observer of anæsthesia. His interest is limited to the operation.

What, then, is best? I believe in the combination. The hospital should have a department of anæsthetics with a competent expert medical experienced anæsthetist, and under his direction such nurse anæsthetists as are required.

DR. SIMON TANNENBAUM, Superintendent of Beth David Hospital, New York City: I would just like to say a word regarding the legal status of the nurse anesthetist. I recently had occasion to recommend the employment of a nurse anesthetist in our hospital, and was authorized by the Board of Trustees to engage one. After we had engaged her one of the surgeons raised the question of the legality of employing a nurse anesthetist. In order to get the question definitely settled I wrote to

the State Medical Society and received the opinion of the counsel of the society, which was to the effect that it depended entirely upon whether or not the administration of the anesthetic constituted medical practice as legally defined. The counsel said the courts had never passed on that question, but gave it as his opinion that the administration of an anesthetic by a nurse, under the supervision of the medical attendant present at the operation, was perfectly legal. I was not quite satisfied with that and wrote for an opinion to the State Department of Charities and received a copy of an opinion handed down by the Attorney-General of the State of New York, which was exactly to the same effect as quoted previously. The concluding sentence of the counsel of the State Medical Society stated that it was perfectly proper and legal to employ the nurse anesthetist under the above-named conditions.

MR. R. P. BORDEN: I am a good deal interested in the statement made by Dr. MacEachern, that the real party in interest is the patient, and it is not a question so much whether it is legal for the nurse to administer ether as whether it is proper. Anesthetic is the word that has been used, but there are many kinds, and it is quite proper for a nurse to administer one kind when it would be entirely improper for her to administer another, because she has had no training in the particular kind that may be prescribed. A great many questions could be eliminated if in all cases the nurse acted under the prescription and instructions of a competent physician. When a case comes from an attending physician in the hospital it can generally be recognized that he will prescribe the proper kind of anesthesia, instruct the proper person to administer it, and see that the improper person does not administer any special kind prescribed. There are difficulties when, as in many cases, a part of the hospital is an open hospital; and I think in such cases a necessary precaution for a hospital to take is to see that a physician connected with the hospital is at the head of the anesthetic department and who will see that no anesthesia is administered except upon a prescription approved by him and by an anesthetist approved by him for that particular kind of anesthesia. One of the astonishing difficulties I have observed is that a great many of the physicians not directly connected with hospitals are content to send their patients in for operation with no preliminary examination to determine whether or not they are fit subjects for one kind or another of anesthesia.

CHAIRMAN BACON: Is there any further discussion? If not, we will take up the next question. "What is the duty of those in charge of the hospital when a patient under the care of an

unethical doctor asks to be admitted to the hospital?" I will ask Mr. C. B. Hildreth of Saint Luke's Hospital, Cleveland, to answer this question.

MR. C. B. HILDRETH, Saint Luke's Hospital, Cleveland, Ohio: In hospitals so organized that they meet the requirements set forth by the College of Surgeons, the duty of those in charge is clearly defined. The standards set forth in the rules and regulations governing the staff organizations and the hospitals are such as to bar an unethical doctor from the place. The rules read in part as follows: "Privileges are extended only to those competent in their respective fields and worthy in character and in matters of professional ethics." It may be embarrassing at times, perhaps, to explain to the patient why he or she cannot enter the hospital and have the doctor who may be her choice; but it is the duty of those in charge to pass that information on either to the patient or those arranging for the patient's admission.

CHAIRMAN BACON: We will pass on to the next question: "Is it advisable to have medical protective insurance for hospitals?" I have asked Mr. E. S. Gilmore to answer this question.

MR. E. S. GILMORE Superintendent of Wesley Memorial Hospital, Chicago, Ill.: As I understand medical protective insurance, it means that some insurance company, for compensation, will undertake to relieve the hospital from any legal responsibility there may be through any professional attention of anybody in the employ of the hospital. Just what would constitute professional attention is rather hard to say. That would depend largely upon the viewpoint of the court before whom the question would come. I think without doubt it would include internes, nurses, orderlies and probably anybody who gives any attention in the hospital to some one who is sick. One thing we must consider in connection with this is, how far the hospital is responsible. I think that a court, if the question was clearly and properly put before it, would decide that the doctor who performs an operation is legally responsible for all the results of that operation. While we want to protect the patient in every way we possibly can, legally I think the opinion of the court would be that, even though you give a physician an incompetent anesthetist, even though you give him an incompetent nurse who miscounts the number of sponges and as a result a sponge is left in the patient, no matter how much the hospital may be to blame, I think the court would rule that inasmuch as that physician did not have to accept that anesthetist or nurse unless he wanted to (he could refuse to perform the operation), having accepted her, he is responsible. I do not believe the court is going to try to

divide up the responsibility between the hospital, the surgeon, the nurse or assistant, or anybody else. The court is going to say that one man is responsible, and that one man is the one who performed the operation. If he is unwilling to take what the hospital gives him, he does not have to; but if he does take it he should be responsible for results. It was made clear the other night by Mr. Lapp what the different kinds of responsibility are, and it has been brought out again by Dr. Olsen this afternoon.

It is very clear to my mind that any hospital organized for profit is very foolish if it does not have protective insurance. I think any hospital that is organized not for profit, in a state where the question has not been tried out, is foolish if it does not have protective insurance. I will go further and say that any hospital in a state where the Supreme Court has rendered a decision is likewise foolish if it does not have insurance, because you can never tell when the Supreme Court will reverse itself, and with the right kind of lawyer presenting a case to it, you are quite likely to get an opinion against you. This insurance usually takes this form: The insurance company, for a compensation, will agree to pay five thousand dollars in the event of the injury or death of one person, ten, fifteen or twenty thousand dollars in the event of the injury or death of more than one person, and for this you pay annually about two dollars a bed. My advice would be to pay the two dollars a bed, add it to your overhead and adjust your rates to cover it, and you will be safe; otherwise some of these days you are going to have a decision against you that will take twenty thousand dollars out of your pocket and it may disrupt your hospital. The responsibility comes from the patient; were it not for the patient, there would be none; therefore, the expense of that responsibility should be paid by the patient. I would suggest that every hospital carry this protective insurance, charge it into overhead, raise its rates enough to cover that and let the patients carry the responsibility.

CHAIRMAN BACON: The next question is: Should the hospital staff be under the control of a chief or president and executive committee?" "How many doctors ordinarily comprise a good staff, or, in other words, how many should be on the staff of a 250-bed hospital with an out-patient department?" "Should the doctors who are active in the hospital proper as staff members also be on service in the out-patient department?" I ask Dr. Munger, from the Blodgett Memorial Hospital.

DR. C. W. MUNGER, Blodgett Memorial Hospital, Grand Rapids, Mich: The first part, "Should the hospital staff be under

the control of a chief or president and executive committee?" The question as asked is not entirely clear to me. I certainly do not think that any hospital staff should be under the control of any one man, be he called chief, president, chairman or what, provided we interpret the word in its broadest meanings. I believe that every staff should have a presiding officer; I believe that this officer, under ordinary conditions, should be selected by a vote of staff members. He must also be some one acceptable to the Board of Trustees. The trustees should have absolute veto in this regard. In organizing new hospitals or in instances where professional jealousies rather than the best interests of the hospital are likely to determine the selection of the chief, it may sometimes be wiser that the head of staff be appointed directly by the Board of Trustees. I would not recommend such an arrangement as a permanent program, however. The hospital staff, as a rule, is too large a group, and is composed of men who are too busy for all detailed matters pertaining to the staff to be discussed in open meeting. Many matters which arise in any hospital, and which should be referred by the superintendent to the staff, would be entirely neglected if it was necessary that the limited time of the general staff meeting be used for their discussion. I believe, therefore, that there should be some executive person or group of persons to consider routine matters. In rare instances it may be entirely satisfactory that these matters be referred to the chief of staff. It is unusual, however, to find any one medical man who has the confidence of his fellow staff members so thoroughly that they will be willing for him alone to decide important questions. I, therefore, believe that an executive committee in conjunction with a chief or president of the staff is the ideal arrangement. I have had experience with a hospital in which the staff executive committee consisted of five men, and one in which the executive committee consisted of sixteen men. I decidedly prefer the committee of five. With a larger committee discussion is too prolonged. There is more of a tendency to display oratorical ability than to carefully consider the best interests of the hospital. To summarize, it is my idea that there should be a head of the staff who should be president of the executive committee, but who should by no means possess absolute authority regarding staff matters.

Question No. 2: "How many doctors ordinarily comprise a good staff; or, in other words, how many should be on the staff of a two hundred and fifty bed hospital with an out-patient department?"

This, like almost every question pertaining to hospitals, can-

not be accurately answered unless we are familiar with all special conditions pertaining to the hospital under consideration. The points which would influence the number of men necessary on the staff are the following:

1. The percentage of charity patients cared for by the hospital.

2. The custom of the hospital as to length of time on service in the various departments. For example, the hospital having a closed staff will probably need more men on the staff in order to keep the hospital filled than the hospital which has a staff and also permits certain other men to use its facilities.

3. A hospital having one or more staff members who do a very large volume of work will naturally require fewer staff members than are usually needed in a moderate sized city where the hospital is used by the general practitioners as well as specialists.

4. Hospitals willing to put on their staffs men who already hold appointments with other institutions and who, at most would send only a part of their patients to the hospital in question, will, of course, be able to use more men on the staff.

The facts enumerated should plainly demonstrate that it is impossible to generalize in the matter of number of doctors on the staff. I have gleaned the following from some recent annual reports: The Grace Hospital, Detroit, Michigan, in 1920, had a daily average of 272 patients, 17.4 per cent of whom were free or part pay. To care for this daily average of 272 patients Grace Hospital had 89 attending physicians. The out-patient department of the hospital treated 15,282 different patients during that year and had a staff of 71. In some instances, doctors held positions on both attending and out-patient staffs.

The Woman's Hospital in the State of New York in 1921 had a daily average of 277 patients with 39 men on the attending surgical staff; 21 per cent of their patients were in free or endowed beds.

Buffalo General Hospital in 1921, with a daily average of 272 patients, had a staff of 75.

The Presbyterian Hospital in the City of New York in 1921 had a daily average of 215 patients with a staff of 46. Their out-patient department cared for 14,496 different patients with a daily average of 313 patients, with an out-patient staff of 45; 58 per cent or more of the work of this hospital was free or part pay.

The average number of patients per day of these four hospitals was 250. The average number of attending staff members was 56, or one man to five patients. The average amount

of charity work done was 21 per cent. The average number on the out-patient staff was 58. These figures give us some idea of what prevails in other hospitals; but it seems to me that the best way to determine the size of the staff is by the needs and best interests of the patients treated in the hospital and in the out-patient department.

Question No. 3: "Should the doctors who are active in the hospital proper (as staff members) also be on service in the out-patient department?"

Doctors who are active in the hospital proper, who are members of the staff of long standing, who take their turn in service with the charity patients, should not, in my opinion, be active in the out-patient department. My reasons for believing they should not are:

1. These men have large private practices to handle; they undoubtedly hold positions in other hospitals; they are more than likely acting as part time teachers in some medical school; in short, they are too busy to do justice to an out-patient department position. It is these men who are likely to be from fifteen minutes to an hour late for their clinics, and to upset the regimen of their department.

2. Doctors of mature experience who already hold staff positions do not look upon appointments in the out-patient department as an honor, but rather as a duty of which, usually, they would be glad to be rid. The younger man greatly appreciates an appointment of this nature and will work untiringly so as to be successful.

3. The younger men need the experience which they can obtain in a well organized out-patient department. The older men who occupy staff positions probably do not need this experience or if they do need it they are probably too late in life to benefit greatly thereby.

It has been my observation that the hospital which gives encouragement and all recognition possible to the well prepared and deserving young medical man profits greatly thereby. The hospital also has the satisfaction of knowing that it has added one more avenue of service to the community, namely, the training of medical men. I feel absolutely certain that the treatment given to our out-patients by these young men at least equals, if not excels, that given by the older men who have less time and sometimes less interest. I believe that by all means the older men should be utilized by the hospital as consultants for the out-patient department so that they may be called in whenever a question of importance needs decision.

CHAIRMAN BACON: As Dr. Munger has covered the ground thoroughly I will take up the next question, which is similar, but pertains to a 40 or 50 bed hospital: "In the small city of 10,000 inhabitants, with a 40 bed hospital where all the doctors send their patients for treatment, what form of organization is most ideal?" I have asked Mr. Fritschel, of the Milwaukee Hospital, to say a few words in regard to this.

REV. H. L. FRITSCHELL, Milwaukee Hospital, 22nd and Cedar Streets, Milwaukee: The data given is a small town hospital of 40 beds, in a comparatively small town of 10,000 inhabitants, all the doctors in the town participating in the hospital, having the privilege of bringing their patients to the hospital, and the question is, how to organize an ideal staff. I would rather substitute the word "practical" for the word "ideal," because if we dealt with ideal persons, we could also establish ideal conditions. If it is admitted that there ought to be a staff, a staff that does not appoint itself, but that is appointed by the board of directors or board of managers, a staff that will coöperate with the superintendent and, of course, also with the Board of Trustees—the conditions here are that all the physicians and all the surgeons in town bring their patients to this institution. I believe the proper way to organize the hospital staff under such conditions would be that all these physicians and all these surgeons and all these specialists be appointed a staff; there may be 15, 20 or 25, but let them all be on the staff of this hospital; and yet there ought to be a little group that will really attend to the affairs of the staff. Therefore, let this large group of men called the staff elect an executive committee of three or five men who really do the work that a staff usually does in an institution; let them go over the records, let them prepare the things that are to be discussed at the monthly meetings, and I would suggest that they have regular monthly meetings, all to participate in these meetings, and in this way try to do the work the larger hospitals do in larger communities, to make the hospital accessible with all its records for the benefit of all and the advancement of scientific research. Team work seems to be very essential, and I believe in this way team work could be established also under such conditions as usually exist in smaller towns, and this is one of the essential things; I believe in such an organization that if they coöperate with each other, and if they have team work coöperation will be established.

I realize that the person who submits this question desires more full and complete information as to the organization of a staff, and I believe this person voices only the question of hun-

dreds and hundreds of small hospitals that have less than 100 beds, and I would, therefore, refer this person to a bulletin of the American Hospital Association under the title "Summary of Principles of Staff Organization," as also to a collection of different constitutions and business laws for hospital staffs which are to be found in the Hospital Library and Service Bureau.

DR. W. W. GOLDEN, Superintendent of Davis Memorial Hospital, Elkins, West Virginia: The speaker pictured rather ideal conditions; he spoke of team work, of coöperation, etc. Unfortunately, from personal experience in a community of just the description given, I would say that that does not exist as a rule. The question is a much more difficult one in a small city than it is in larger centers; much more difficult because the physicians of the community are in a closer field and the competition is greater and the personal element of jealousy is infinitely bigger, so that the problem is really a much more difficult one than the speaker would imply by his general smooth and nice plan. That is ideal, but it does not exist. I think it is a question worth while considering by this Association to a greater extent than it has been considered in the past. What sort of a staff to have in a small hospital in a small community is a very important question and it is of growing importance because of the multiplicity of hospitals of that size in such communities. On the whole, probably better results would be obtained under such conditions by a staff appointed by the Board of Trustees and not a staff consisting of all the physicians in the community and an executive committee selected by that staff, as the speaker suggested. That does not mean to exclude the other physicians in the community, reputable physicians, from bringing their cases and treating them in the lines they are competent to practice. But on the whole, I believe that a hospital of that size in a community of that size will do better work as far as the patient is concerned if the staff is not made up of all the physicians in the community. I believe there ought to be an authority outside that body, and the Board of Trustees is the one.

CHAIRMAN BACON: We will pass to the next question. I am sorry to have to hurry through these, but we are not going to get half through as it is. "What is the proper attitude toward allowing visitors in the operating room during operations?" I have asked Mr. Paul H. Fesler, Superintendent of State University Hospital, Oklahoma City, to answer this question.

MR. PAUL H. FESLER: Superintendent of State University Hospital, East 13th and Philips Streets, Oklahoma City, Oklahoma: I think the proper attitude is the one that protects the patient. Of course, in that case I do not think we should permit

visitors in the operating room. I find this a very easy rule to enforce in so far as charity or clinical cases are concerned, but sometimes it is difficult in the case of private patients. However, I believe that we should use our best efforts to enforce that rule.

CHAIRMAN BACON: Is there any further discussion on this subject?

DR. OLSEN: We have a rule in Chicago that lay visitors are not admitted to the operating room under any circumstances. We do not admit them; we admit professional men who are interested in surgical work, on special occasions; but lay visitors, no matter how close to the patient, are absolutely barred, pay or no pay.

CHAIRMAN BACON: The next question involves the Association. This is the first round table session I can remember where we have ever had a question like this, "Should the Association make the daily program longer or shorter?" I will ask Dr. Laub, of the Greenpoint Hospital, to answer this.

DR. RAYMOND G. LAUB, Medical Superintendent of Greenpoint Hospital, Kingsland Avenue and Bullion Streets, Brooklyn, New York: I have spoken with the members of the Association on this matter, and it seems to be the consensus of opinion that we cut down the night sessions. I then talked to the exhibitors, and they do not agree with this at all. They think we should have a session in the evening at least one hour in length, which will cause the people to attend, so that they will have a chance to do a little business afterwards. I think we should start and stop each session much more promptly.

CHAIRMAN BACON: This is very interesting to me. The next question is: "Can post mortems be made without the consent of the authorities of the hospital and that of the relatives of the deceased?" I have asked Dr. E. R. Crew, of the Ohio State Hospital Association, to answer that question. Dr. Crew gave this to me for fear he would not be present, and I will read it for Dr. Crew:

AUTOPSIES AND POST MORTEM EXAMINATIONS.

The general rule is that the unauthorized autopsy of a deceased person's body is a tort, giving rise to a cause of action for damages. A physician making an autopsy with the consent of the persons entitled to the right of sepulture is not liable to an action for damages. It has been held, on the one hand, (in Minnesota) that it is not defense to an action for damages resulting from an autopsy on a body without the consent of the next of kin that defendant, the attending physician, performed

the autopsy to ascertain the cause of death so as to be able to certify it as required by statute. On the other hand, it has been held (in Colorado, Georgia and Kentucky) that an autopsy performed by a physician in accordance with the law, in order to obtain a certificate of burial from the board of health, does not render the physician liable to an action for damages, where it is performed in a proper manner, although without the consent of the person having the right of sepulture; and that such an autopsy does not render an undertaker having charge of the body liable for permitting the examination to be made. But an undertaker who has taken charge of a body at the request of persons entitled to its custody and who afterwards permits physicians to make an unauthorized autopsy is jointly liable with the physician. Where an attending physician made an incision in the body shortly after death to ascertain the exact cause of death, there being no dismemberment or removal of any part or organ, it is not such mutilation of the body as to give the widow of deceased a cause of action.

AUTOPSY PERFORMED BY OR ON ORDER OF CORONER.

The authority of a coroner to ascertain the cause of death in certain cases must be exercised in a proper manner. If an autopsy is performed by a physician under the direction of a coroner in a proper manner, the physician is not liable for dissecting the remains, and the issuance and service of a subpoena on the physician is not indispensable as a direction to make an autopsy. If, however, the coroner's physician, who is authorized to make an autopsy on the remains when directed by a coroner, proceeds to do so without any direction, he is liable for an action for the unlawful dissection. Furthermore, although an autopsy may be authorized by a coroner, this does not justify the removal and detention of any organs of the deceased by the coroner's physician, in the absence of a further direction. Where there is a statute requiring all citizens to report deaths of a suspicious nature to a coroner, it is necessary that the report be false in order to render a person liable for a dissection made by coroner on his report. (17 Corpus Juris, pages 1144 and 1145.)

CHAIRMAN BACON: This is something that, when printed in our annual proceedings, should be read carefully by all. Is there any further discussion of the subject?

MR. E. S. GILMORE: Just that we may know what to do, I would suggest this: That a physician ought not to make an autopsy without the consent of the person authorized to give it.

If, for any reason, it is very desirable to have the autopsy, all that needs to be done is for the physician to refuse to sign the death certificate and refer the matter to the coroner, who will order an autopsy.

MR. WALL, of Michigan: In the State of Michigan the coroner cannot so order an autopsy without going through an inquest; ordering an inquest means in every instance additional expense to the county, and we sometimes have a great deal of difficulty in persuading the coroner that an autopsy is necessary in very important cases. That brings to mind the thought that this Association, as an organization, is in an excellent position to mould the public opinion in the country toward the point where we can have laws which will permit an autopsy on every case.

CHAIRMAN BACON: As soon as we have every state in the Union organized we can put over the laws that we want to regulate just such things as this. I have a question here that may be of interest to a great many of you: "How many interns should a two hundred bed hospital have?" I asked Dr. Sexton, Superintendent of the Hartford Hospital, to answer this question.

DR. LEWIS A. SEXTON, Superintendent of Hartford Hospital, Hartford, Conn.: In arriving at the information asked for in this questionnaire, we have considered only general hospitals. The question was not very clear, so we did not include any special hospitals of any type.

The number of interns a 200 bed hospital should have depends entirely on the type of the hospital and the assignment to duty. Hospitals that have a teaching connection require a relatively larger staff than those that have no connection with a medical school. This is because the records must be completed each day and be ready at all times for teaching purposes. The number of 200 bed hospitals having teaching connections, however, are so few that most of our conclusions have been drawn from non-teaching institutions. The number of interns in certain states is influenced by the assignment to duty which is regulated by the Board of Medical Examiners and Licensure—Pennsylvania, for example. It is surprising how few hospitals there are in the United States and Canada that have exactly 200 beds, and there are slight variations in the following list, some having a few more, others a few less than the exact number. Of the 37 hospitals written to, we have replies from 24. It is particularly gratifying to note that only three out of the 24 hospitals heard from are experiencing any difficulty in obtaining the desired number of interns. The number of interns is also in-

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fluenced by the presence of paid resident physicians. Of the 24 hospitals under consideration eleven employ resident physicians.

2 hospitals have		2 interns	
2	"	3	"
3	"	4	"
2	"	5	"
5	"	6	"
1	"	7	"
1	"	8	"
1	"	9	"
1	"	10	"
2	"	12	"
1	"	16	"
1	"	19	"
1	"	21	"

Fourteen of the 24 appointed their staffs by special arrangement, the remaining 10 by competitive examination.

Twenty of the 24 have a rotating service.

Seventeen of the 24 have a 12 months' service.

Twelve of the 24 pay their interns salaries ranging from \$15 to \$50 per month.

The figures show that of the hospitals having no teaching connection the largest number have six interns. Assuming that 20% of the 200 beds are unoccupied, this would mean that each intern would be responsible daily for the records and care of 27 patients. With an average stay in the hospital of 14 days per patient, this would mean 2 admissions daily upon whom physical examination must be made, two discharges upon whose histories discharge notes must be written and daily progress notes on the other 23 patients. With the time that must be devoted to operations, dressings and clinical examinations, this would seem to leave little time for study and recreation, both of which are essential. From the foregoing analysis it is evident that a more ideal number of interns for this size hospital would be at least eight.

CHAIRMAN BACON: The next question is: "Should the hospital, realizing that the patient is not receiving all the necessary treatment, and the patient's people feeling the same, permit the patient to change doctors while in the hospital?"

MR. CHAPMAN: The answer to that depends on the type of patient. If it is a ward case, it is within the hospital's right to see to it that the patient does get adequate service. If the case is in the private pavilion, where the patient is primarily responsible for selecting the physician, it is certainly within the

province of the patient to change his physician if he does not come up to the scratch. I think that is about the only way the question can be answered.

CHAIRMAN BACON: "Are all nurses subordinate in position to all physicians?" I have asked Mr. Clarence T. Johnson, Superintendent of Washington Boulevard Hospital, Chicago, Ill., to answer this question.

MR. JOHNSON: The question before us, "Are all nurses subordinate in position to all physicians?" Is it a question of doubt in someone's mind as to the relationship of the nurse to the physician?

Assuming it to be, to give a more concise answer to the question let us extract two of the most commonly used terms of the word, subordinate, "Inferior in rank and inferior in importance."

I shall base my conclusions with regard to the two terms mentioned on this standpoint: A reputable practicing physician vs. a trained nurse, one who upholds the high qualities, standards and ethics of the nursing profession as dedicated to this universe by the great and loved Florence Nightingale.

The nurse is taught during her training how closely her work is allied to that of the medical profession and I feel that the scope of training applied to the curriculum of the nursing profession is based more or less primarily on the fundamental principles of the medical teachings, she is taught, or should be taught from the first day she enters her respective field, the importance of her assistance and coöperation to the physician in her work in connection with the welfare of the unfortunate sick.

In the capacity of a trained graduate nurse, we must still bear in mind that she is not authorized to practice medicine, due to the fact that the extent and scope of her training has been along different lines in respect to the care of the sick; but she is qualified to be his co-worker in this connection and should exercise her skill and ability in executing any such orders on treatment as are prescribed by the physician under his supervision, bearing in mind the fact that the physician in charge of the case is at all times responsible for the case.

Permit me to quote the last paragraph of the Nightingale pledge, "With loyalty will I endeavor to aid the physician in his work and devote myself to the welfare of those committed to my care." Here we are reminded that nursing ethics require her to assist the physician. In this paragraph we have the word "aid," meaning to assist, to help, and to support. So with the aforesaid in mind, with all due respect to the nursing profession, I will impel my answer to the first interpretation of the word sub-

ordinate, "Inferior in rank." The nurse is subordinate to the physician.

In giving my answer to the second interpretation of the word subordinate, "Inferior in importance," I do not hesitate to emphatically say that the nurse is equally as important in her position as the physician in his, providing both live up to the high standards of their respective professions.

GENERAL SESSION

September 28th, 4:00 P. M., President O'Hanlon in the Chair

PRESIDENT O'HANLON: The Committee on Constitution and Rules presented two or three amendments yesterday for your consideration. Are you ready for the question on those amendments?

MR. GILMORE: I move that they be adopted as read.

Motion seconded and unanimously adopted.

MR. R. P. BORDEN: This is the report of your Committee on Resolutions:

Several resolutions have been submitted to the Committee on Resolutions and have had careful consideration. Among them are resolutions in which hospitals are not directly concerned but which involve very general policies affecting public physical welfare and with regard to which, as your Committee believes, no opinion should be expressed except after proper discussion and deliberation. Unfortunately, there is no time available to arrive at conclusions based on wise and properly informed judgment, and therefore your Committee believes it expedient to put these difficult problems before you at the present convention. It suggests, however, that in succeeding conventions a definite early hour should be arranged for the presentation of resolutions to the Committee on Resolutions in order that they may be put in proper form for action at a meeting where sufficient time may be assigned for full consideration and proper action.

The Committee on Resolutions does not desire to appear to function as a "canning" committee; but in the resolutions that have been presented—the principle of which in most every instance has been fully in accord with the policies of the Hospital Association and of the trustees—there were problems mixed up with them which were pretty complicated. For instance, in one there was a resolution indicating an attempt to invoke congressional legislation, and in order to come to a satisfactory conclusion with regard to the question the comparative authority of the police power between the state and the federal government was involved. You have seen illustrations of it in the Volstead Act, in the Smith-Towner Bill, and it might possibly bring before the members of this Association the question as to whether or not they advocated a change in the Constitution of the United States. In other words, before we could arrive at a conclusion

on those resolutions, that problem should have been discussed and either eliminated or answered in one way or another. In another resolution the question of having a periodical health examination was involved, and some of us happen to know that the doctors on one side and on the other who are very largely concerned had very positive convictions for or against, and before coming to any conclusions with regard to that matter it seemed also that the members of this convention ought to give it careful consideration before expressing their opinion.

There is another thing that the Committee on Resolutions believes will appeal to the members of this Association; it is this: that any resolution worthy of coming out with the name of the American Hospital Association behind it should concern an important matter, and it should not have the backing of the American Hospital Association unless it expresses the wise conviction of experts who make up the body of the Association. It can have no force unless it is the wise conclusion of those who pass upon it; and if we get in the habit of passing lightly over resolutions without giving them proper thought, when we come to an important resolution to which we have given proper thought, it loses its weight because we have got the reputation of passing anything that is put before us. I hope the members of the Association will agree with your Committee on Resolutions, that resolutions ought not to be submitted before the convention unless there be time to come to a wise and proper conclusion on the question involved.

There was, however, one resolution which directly concerned the affairs of this Association. It was also directly in accord with the policy of the trustees, and it was suggested at a meeting day before yesterday. It concerns the appointment of a Committee to examine into the question of business administration of hospitals, and the establishment of a bureau from whence the members could get information and advice. It also included a resolution that the findings of this Committee should be printed and disseminated among the members of the Association. The Committee on Resolutions had a talk with the author of this resolution and pointed out to him (and it did not take much pointing out because he immediately agreed when the matter was suggested), that in order to reach any wise results from such a Committee, the judgment of an expert, the investigation of an expert, would be required and that it would cost money. There is one thing that I personally would like as a business man and not as a doctor, to have the representatives of hospitals carry through the country, and it is this: That the great power and function of this Association is in the line of the resolution

which was suggested and of which I am now talking, namely, to acquire and make available information that will be valuable to the business administration of hospitals; that this cannot be done without money; that the money which is spent coöperatively in such direction is for the advantage of all at the minimum of expense to individual members, and that as we get an increase in institutional membership, an increase providing a sufficient budget to do the work which we conceive clearly can be done by this Association, it is going to contribute to the economical administration of hospitals throughout the country. And so, wherever it is possible, if you will urge upon those who have the matter in charge the economic advantages to every hospital in the country of joining in this coöperative enterprise for the benefit of all hospitals, you will be better off and they will be better off and we will proceed more rapidly along the road on which we have already started. But after talking with the author of this resolution we agreed it was not best to let the matter die, and so we evolved a resolution which did not make necessary the expense which the original resolution involved, and it is this:

Resolved, That the trustees be urged to proceed as rapidly as possible to devise means by which information with regard to the business of hospitals may be gathered, tabulated and made available, and to establish a bureau or committee with whom hospital managers may consult and from whom they may obtain advice on business problems; and that pending more definite action a committee be appointed to investigate the problem and report on possible methods of meeting this need, at the next convention of the Association.

And your Committee recommends and moves the adoption of that resolution.

Motion seconded.

MR. LOUIS C. TRIMBLE, Flower Hospital, New York: As the original presenter of that resolution, I would like to say just one or two things about it. Being very new in the hospital business and equally ignorant when I started in, I have always felt that I could go to any hospital superintendent or other person and ask them for information and help, and in ninety-nine times out of a hundred I am glad to say that I did get the help that I wanted. In putting in this resolution I was guided only by the desire to get help that I felt as a hospital superintendent I needed; in other words, am I economizing where I should and am I spending money to the best advantage? When Mr. Borden and the committee which he represents pointed out to me the fact that I was trying to get the Association to spend money that it did not have, I was forced to agree with him. I would

like to say at this time that if this resolution appeals to the Association as being of any value, and if the trustees so desire I will be very glad to put myself and my secretary at the disposal of the trustees to help get this information into the hands of all of us.

PRESIDENT O'HANLON: Is there any further discussion of this proposed resolution?

There being no further discussion, the resolution was unanimously adopted.

PRESIDENT O'HANLON: There was another motion presented yesterday—on which action was deferred until today—approving the action of the trustees of the Association on the report on the training of hospital superintendents. Is there any discussion?

This motion was unanimously adopted.

PRESIDENT O'HANLON: Are there any other matters anyone cares to bring before the Association? If not, I will ask for the report of the tellers on the result of the election.

The report of the tellers was as follows:

REPORT OF THE TELLERS:

A total of 312 votes were cast.

For President

Dr. M. T. MacEachern....	181
Dr. Willis G. Nealley.....	125
Dr. A. C. Bachmeyer.....	4
Dr. Mallory (?).....	1
Dr. Chas. E. Stewart.....	1

For First Vice-President

Dr. A. K. Haywood.....	278
Mr. J. M. Smith.....	5
Mr. F. E. Chapman.....	3
Mr. Rockefeller	2
Mr. C. J. Cummings.....	1
Dr. Willis G. Nealley.....	1
Dr. M. T. MacEachern....	1

For Second Vice-President

Miss Charlotte A. Aikens..	275
Dr. A. K. Haywood.....	1

For Third Vice-President

Dr. R. G. Brodrick.....	278
Dr. M. T. MacEachern....	4
Dr. C. W. Munger.....	1

For Treasurer

Dr. Robert J. Wilson.....	289
Mr. C. J. Cummings.....	3

For Trustees

Dr. A. C. Bachmeyer.....	276
Rev. Maurice F. Griffin....	264
Mr. Reuben O'Brien.....	4
Mr. E. S. Gilmore.....	4
Mr. H. E. Bishop.....	3
Dr. Walter E. List.....	3
Mr. Pliny O. Clark.....	2
Dr. F. C. English.....	2
Mr. Howell Wright.....	2
Dr. A. B. Ancker.....	2
Dr. E. F. Olsen.....	2
Dr. John M. Peters.....	1
Dr. John F. Bresnahan....	1
Dr. C. S. Woods.....	1
Dr. George O'Hanlon....	1
Dr. H. W. Hersey.....	1
Dr. Willis G. Nealley....	1
Mr. John Dugan (?).....	1

PRESIDENT O'HANLON: You have heard the result of the election. We will express our thanks to the tellers for the performance of their onerous duties; they have been continuously busy since 10 o'clock last night. I want at this time to express my thanks to the Association for their kindly assistance and co-operation with me. It is a very great pleasure to introduce to you Mr. Bacon, President of the American Hospital Association.

President Bacon takes the chair.

PRESIDENT BACON: Ladies and Gentlemen: I can hardly express in words my appreciation of the honor you have bestowed upon me, but I can honestly say that if I have made any success as a hospital superintendent it is due principally to the fact that I have been an active member of the American Hospital Association. When I first took up hospital work nearly twenty-five years ago I realized that to succeed hospital workers must in some way get together for the exchange of ideas, therefore as soon as I had the opportunity I joined the American Hospital Association. I was not alone in this thought, for if you will notice our membership list from the beginning you will see that it is composed of hospital workers whose institutions are the most progressive in the country. In order to do the greatest amount of good to the sick of our land, every hospital—no matter how large or how small—should become a member of our Association, for moral support and for our mutual benefit. Our Association is not in business to make money. It is run on the same basis as our hospitals. The officers and directors give their time and labor without any remuneration. To the various committees we owe our gratitude for their services given free of charge, the only salaried officer being your executive secretary. We need your membership in order to carry on the program for the future. Where there is no growth and development, there is disintegration; therefore, we must speed up our development. I believe that every factor pertaining to hospitals should be studied and adjusted as rapidly as possible and permanent bureaus established for all departments that are necessarily continuous, and this should be done as quickly and as conservatively as conditions will permit.

We have created conditions in and around our Association that make it compulsory for us to forge ahead in the interests of our hospitals. From now on we should be a fast moving organization, always alert, taking advantage of every change in our laws, in hospital administration, in our medical and nursing

schools, and instantly passing it on to our membership. Our guiding star is "Higher Standards" in the care of the sick, to attain which we must be at all times a constructive organization.

I believe that if we can group all our interests into state organizations which are under the direction of the parent organization, we can become the greatest factor in our government for the promotion of health to our people throughout the land. We can accomplish this when we hold in our files a complete membership of the hospitals of the two countries, thus working together as a unit for proper laws and standards in the care of the sick.

The American Hospital Association now seems destined to be a most potent factor in the development of progressive and efficient hospital service to the public; therefore, the management of the Association now exercised by its trustees and officers becomes a most sacred trust. A great building reflects the ideals of its designers and builders; so our Association represents the ideals of those who conduct its affairs; therefore, your officers will continue to give serious thought to the future policies of our Association. I have chosen the following standing committees for the coming year:

Constitution and Rules

Richard P. Borden, Chairman, Trustee, Union Hospital, Fall River, Mass.

George S. Hoff, Secretary, Lake View Hospital, Danville, Ill.

John M. Peters, M. D., Supt. Rhode Island Hospital, Providence, R. I.

Nomination

George F. Stephens, M. D., Chairman, Supt. Winnipeg General Hospital, Winnipeg, Canada.

Chas. S. Woods, M. D., Executive Secretary National Methodist Tuberculosis Sanatorium, Indianapolis, Ind.

W. P. Morrill, M. D., Supt. Shreveport Charity Hospital, Shreveport, La.

Lewis A. Sexton, M. D., Supt. Hartford Hospital, Hartford, Conn.

C. J. Cummings, Supt. Tacoma General Hospital, Tacoma, Wash.

Membership

Rev. H. L. Fritschel, Chairman, President Milwaukee Hospital, Milwaukee, Wis.

Miss Margaret M. Cumming, Supt. Buhl Hospital, Sharon, Pa.

Sister N. Geraldine, Rosemary Home, Euclid Village, Cleveland, Ohio.

Out-Patient

Alec N. Thomson, M. D., Chairman, Director Department of Medical Activities, American Social Hygiene Assn., 105 W. 40th St., New York City.

A. K. Haywood, M. D., Supt. Montreal General Hospital, Montreal, Canada.

Walter Niles, M. D., Dean Cornell Medical College, Ithaca, N. Y.

SECRETARY WARNER: By a telegram from the Woman's Board of the Presbyterian Hospital of Chicago, I am asked to convey this message to our new President: "We send hearty congratulations and pledge our loyal support to you for the coming year."

PRESIDENT BACON: Is there any unfinished business? Has anyone anything to suggest for next year?

MR. NEWELL, of McKeesport Hospital, McKeesport, Pa.: I have one suggestion to make. I entered hospital work within the past year, after a number of years' experience in business life. I have attended national conventions of various organizations, and this is the first time that I have attended any gathering of this character without finding some effort made to promote sociability. I came here frankly hoping to make some valuable acquaintances among my fellow workers in the hospital field. Those persons that I have met I have met entirely through exhibitors, the representatives of supply houses with whom we do business, and it seems to me that the Association could profitably find a place for at least one evening devoted to some social activities.

PRESIDENT BACON: That is a very valuable suggestion. We will try and do better next year.

MR. H. E. BISHOP, Superintendent, Robert Packer Hospital, Sayre, Pa.: I am going to second what this gentleman has said. I have attended ten consecutive conventions, the first of which

was at Boston. No entertainment had been planned at Boston, but since that time, with but one exception, some form of entertainment has been arranged. The older members of the Association who went to St. Paul and to San Francisco will never forget how royally the Middle West entertained us. Some form of entertainment, such as a dinner, is needed to get our members acquainted, as they should be to get the most out of our conventions.

While I am on my feet I want to ask whether this Association is not large enough to support a magazine or bulletin of our own to be issued monthly, and not to have to depend on other magazines? Two or three years ago we had some very valuable bulletins that saved our hospitals a lot of money. During the past year, however, the principal bulletins have been those advertising this convention. I think we should have a magazine printed regularly, as I believe it would be of much greater value than the present system of bulletins sent out at irregular intervals.

PRESIDENT BACON: These are all good suggestions, and we would like to have more of them from you. You do not have to express them here; if you will write me a letter, giving me your ideas on what a convention should be, I will be glad to receive them.

PRESIDENT BACON: I am sure all of you would like to hear a word from our President-elect, Dr. MacEachern. (Applause.)

DR. MACEachERN: Mr. Chairman, Ladies and Gentlemen: I expected that we would just have an election and did not by any means expect this honor which you have so kindly thrust upon me, and I certainly would rather see my confrère here, but to you having elected me, I will certainly promise to thoroughly prepare myself to try and live up, in a measure, partly at least, to what you will get this coming year and what you have had in the past year. I am sincerely interested in hospital work. It is the thing that is nearest my heart. In America I see no boundary line in hospital work between Canada and the United States, and I am never going to see it, because I believe this is all one great big hospital country and we are going to work hard for this Association, because at present it is the largest in the world, and I think the greatest in the world, and we are going to make it greater. This year your program has had a number of wonderful features, and it is better, I think, than any program we have ever had. I wish to thank you very sincerely for the honor and confidence you have placed in me, and I will certainly try to live up to it.

The convention then adjourned.

CONSTITUTION AND BY-LAWS

AMERICAN HOSPITAL ASSOCIATION INCORPORATED

(AS AMENDED AT THE ANNUAL CONFERENCE, SEPT. 25-28, 1922, ATLANTIC CITY, N. J.)

ARTICLE I

The name of this Association shall be "The American Hospital Association."

ARTICLE II

The object of this Association shall be to promote the welfare of the people so far as it may be done by the institution, care and management of hospitals and dispensaries with efficiency and economy, to aid in procuring the cooperation of all organizations with aims and objects similar to those of this Association; and in general, to do all things which may best promote hospital efficiency.

ARTICLE III

Section 1. The membership of the Association shall be—

A. Institutional.

Any corporation or association organized for the promotion of public health or for the care or treatment of the sick or injured shall be entitled to membership subject to the following:

Active.—Active institutional members shall be institutions having direct responsibility for the care of patients however such institution may be designated.

Applications for active institutional membership shall be addressed to the Executive Secretary in writing, signed by a duly authorized representative of the corporation or association; they shall be referred to the Membership Committee and the applicant shall become a member upon receiving the approval of the majority of the Membership Committee and upon the payment of the initiation fee as follows: Hospitals with a capacity of less than 100 beds shall pay ten dollars; those from 100-250 beds, inclusive, shall pay twenty dollars; all over 250 beds shall pay thirty dollars; all other organizations eligible to active institutional membership shall pay ten dollars.

Constituent active institutional members shall be entitled to appoint as their representatives in the Association any person or persons who are eligible to active or associate membership in the Association, and of the number so appointed no more than three, including the Superintendent, shall have all the privilege and authority of active personal members and shall be so designated, and others so appointed shall have the privileges of associate personal members.

Associate.—Associate institutional members shall be corporations, associations or other organizations existing for the promotion of public health but not having direct responsibility for the care of patients.

Applications for associate institutional membership shall be addressed to the Executive Secretary in writing signed by a duly authorized representative of the corporation or association; they shall be referred to the Membership Committee and the applicant shall

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become a member upon receiving the approval of a majority of the Membership Committee and the payment of the dues for the first year. Constituent associate institutional members shall be entitled to appoint as their representative any person or persons eligible to active or associate personal membership or officers of the corporations or organizations without other hospital connections, who shall have all privileges except vote.

B. Personal

Active.—Active personal members shall be those who at the time of their election are trustees or superintendents, or assistant superintendents of hospitals, or members of the medical staffs of hospitals, however such officials may be designated, or executive officers of any organization having as its primary purpose the development of hospitals for general public service, the scope and nature of whose work is approved by the Trustees. Any person once an active personal member may continue such membership so long as the rules of the Association are conformed with.

Associate.—Associate personal members shall, at the time of their election, be heads of any executive, administrative, or educational department of a hospital, other than as designated in Section 1B Active, or contributors to, or members of, any association or board, the object of which is the foundation, maintenance or improvement of hospitals or the promotion of organized charities for the improvement of health. Associate personal members may hold office, but shall not have the right to vote at meetings of the Association.

Applications for active or associate personal membership shall be in writing, addressed to the Executive Secretary, and shall be endorsed by one or more members of the Association. They shall be referred to the Committee on Membership; and the applicant shall become a member upon receiving the approval of a majority of said Committee, and upon payment of an initiation fee of five dollars for active and three dollars for associate membership, which shall cover the dues payable at the next convention of the Association after election.

Section 2. Upon attaining any of the offices designated in Section 1B Active an associate personal member may become an active personal member by completing the payment of the dues for actual personal members as provided in the By-Laws.

Section 3. Honorary personal membership after approval of the Membership Committee may be suggested at any session of the Association by any member for any person who by reason of public or private service, or for any other reason, should be entitled to such recognition; and such person may be elected an honorary personal member by a majority vote of those present at any subsequent session of the Association.

Honorary personal members shall have all the privileges of active personal members, except voting at meetings of the Association. They shall be exempt from the payment of dues.

Section 4. Established personal memberships shall be continued for life on the payment of fifty dollars by active members and twenty-five dollars by associate members with exemption from the payment of dues.

ARTICLE IV: OFFICERS

Section 1. The officers of the Association shall be a President, President-elect, three Vice-Presidents, an Executive Secretary, a Treasurer, and a Board of Trustees as herein provided.

The Executive Secretary shall serve as Secretary of the Board of Trustees.

Section 2. The above officers, other than the Board of Trustees and the Executive Secretary, shall be elected at each convention. The Executive Secretary shall be appointed by the Board of Trustees. They shall assume their duties at the close of the convention and shall serve until the close of the convention next succeeding, or until their successors are regularly elected and installed. Provided, however, that the President-elect shall assume the office of President at the next convention succeeding the convention of his election and that after the year 1919 no President shall be elected as such.

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ARTICLE V: TRUSTEES

There shall be a Board of nine Trustees, which shall have charge of the property and financial affairs of the Association, and shall hold title thereto under the name of "Trustees of the American Hospital Association." The President, President-elect and Treasurer shall constitute three of said Trustees and two Trustees shall be elected annually, at the convention, to serve for three years, excepting that in 1919 one of said Trustees shall be elected for one year, one for two years and two for three years. Trustees shall serve until their successors are elected.

The Board of Trustees shall, always subject to the vote of the Association, have general control and management of the business of the Association, and may appoint and fix the salaries of such officers and agents as it may deem necessary and expedient and establish rules and rates for the use of such facilities as it may in its judgment provide.

ARTICLE VI: SECTIONS

In order to facilitate the work of the Association, sections may be formed and discontinued from time to time, as the Trustees may by vote determine. Such sections may be geographical, in order that recognized meetings of the Association may be held in various parts in places not easily accessible to all members, or may be departmental in their nature and devoted to any recognized branch of hospital work. Proceedings of any authorized section of the Association approved by the Board of Trustees may become a part of the proceedings of the Association, and any resolution adopted by a geographic section shall be recognized as a motion duly made and seconded by any general session of the Association, and vote of the general Association shall be taken thereon.

ARTICLE VII: ANNUAL DUES

In order to provide funds for the maintenance of the Association, both institutional and personal members shall pay annual dues as may be determined by the By-Laws.

ARTICLE VIII: VACANCIES

Any vacancies occurring between the regular annual meetings in the office of the President, President-elect, the various Vice-Presidents, Treasurer, Executive Secretary or Board of Trustees, shall be filled temporarily by vote of the Board of Trustees; any other vacancies shall be filled temporarily by appointment of the President; and the appointees shall hold office until their successors are elected by the Association.

ARTICLE IX: AMENDMENTS

The Constitution and By-Laws may be amended by vote of not less than two-thirds of the members present and voting at a recognized general session of the Association; provided, however, that proposed amendments shall be submitted in writing at a recognized general session, and shall not be acted upon at a session at which they are proposed, but may be at any subsequent session.

BY-LAWS

ARTICLE I

Section 1. There shall be an annual meeting or convention of the Association held at a time and place fixed by vote of the Association, or, if not so determined, by the Board of Trustees. The President and the Executive Secretary shall arrange programs for the convention.

Section 2. Special meetings may be called by the President, or in his absence, by

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a Vice-President, upon the written petition of not fewer than ten (10) members. This petition shall recite the object of the meeting. The President, through the Secretary, shall give notice of not less than sixty (60) days before the proposed time of such special meeting to each member of the Association, which notice shall also recite the object of the meeting.

Section 3. A quorum of the Association shall consist of not fewer than thirty (30) voting delegates or active members.

Section 4. Meetings of sections shall be held in accordance with the rules established by the enrolled members of the section hereinafter provided; provided, however, that such meetings shall not interfere with any general session of the Association.

ARTICLE II: ELECTIONS

Section 1. All officers shall be elected by ballot, excepting where it is otherwise ordered.

Section 2. A majority of the votes cast shall constitute an election.

Section 3. Only the delegates of the constituent institutional members so authorized by Article III, Section 1, and active personal members shall be entitled to vote.

ARTICLE III: DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association, and of the Board of Trustees, of which he shall be the Chairman. He shall appoint all committees, unless, by vote of the Association, other provisions shall be made. He shall be, ex officio, a member of all standing and special committees. The President-elect shall keep in close touch with the Association work as a member of the Board of Trustees, and otherwise during the year he holds the position in preparation for his assumption of the office of President.

Section 2. The Vice-Presidents shall, in the order of their rank, in the absence of the President, perform his duties.

Section 3. Subject to instructions from the Association or from the Board of Trustees, the Executive Secretary shall be the general executive officer of the Association with duties, responsibilities, and privileges such as generally accompany such executive positions. He shall keep the minutes of the meetings and the records of the Association in books provided for these purposes. Subject to the order of the Trustees, he may serve as secretary of standing committees, except the Committee on the Nomination of Officers, and perform such other duties as the Association and the Board of Trustees shall direct. Under the direction of the Trustees, the Executive Secretary shall report to the Association the proceedings of the Trustees and also make such report of his own services as may be advisable.

Section 4. The Treasurer shall receive all dues and other moneys of the Association and shall deposit and account for same, under the direction and control of the Board of Trustees. He shall give to said Board such bond as it shall determine for the faithful performance of his trust. Such bond shall be in the custody of the President. All disbursements and expenditures shall be made under the direction of the Board of Trustees and subject to its rules and requirements. The Treasurer shall keep proper books of account, and shall present a report of the finances of the Association at the annual meeting.

ARTICLE IV

Section 1. The President shall, immediately after his election, appoint the following standing committees: namely, a Committee on Constitution and Rules, a Legislative Committee, a Membership Committee, all of three members each, a Nominating Committee of five members, a Committee on Out-Patient Work of three members, each of which shall hold office for three years from the date of appointment. This Committee shall undertake such study or activity as may advance progress of out-patient service and shall report to the Association.

Section 2. The Committee on Nominations shall nominate to the convention the

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names of the candidates for President, three Vice-Presidents, Treasurer and two or more Trustees as vacancies exist. The action of this Committee is at all times subject to the approval of the convention. In the year 1919 it shall nominate a President-elect in addition to a President and thereafter shall nominate a President-elect instead of a President.

Section 3. The members of the Membership Committee shall consider all applications for membership, determine the eligibility of the applicant and express their approval or disapproval thereof to the Executive Secretary.

Section 4. The Committee on Constitution and Rules shall consider and report on all proposed amendments in the Constitution and By-Laws and all Rules of Order.

Section 5. The President shall have the power to appoint such special Committees as may be deemed desirable.

Section 6. The Legislative Committee shall, so far as possible, inform itself concerning all legislative procedure affecting the Association or the interests which it represents. Subject to the approval of the Association or Board of Trustees, it shall actively support all desirable legislation and actively oppose all unwise legislation.

ARTICLE V: DUES

Section 1. Constituent institutional members shall pay annual dues as follows: Hospitals of less than 100 beds shall pay annually \$10, hospitals of 100-250 beds shall pay annually \$25, hospitals of more than 250 beds shall pay annually \$50. All other institutional members shall pay annually the sum of \$10. States, counties, and municipalities shall pay in accordance with the above schedule for each institution accepted to membership. The maximum amount in such case shall, however, not exceed \$100.

Section 2. Dues of active personal members shall be \$5 and of associate personal members \$3 for each calendar year. Life personal members are exempt from the payment of annual dues. Dues shall be payable on or before the first day of March of each year at the office of the Executive Secretary, provided, however, that the dues of members acting as the delegates of institutional members shall, upon request of such personal members to the Treasurer, be remitted for the period of delegation.

Section 3. If said dues are not paid on or before the closing of the annual convention for the current year, the Executive Secretary shall notify the members in arrears, enclosing a copy of this section; and if said dues are not paid on or before the succeeding first day of January, the delinquent member shall be suspended and thereafter shall not be entitled to receive notices, or copies of transactions, or to participate in the meetings until all arrears are paid in full.

Section 4. At any time within three years after the date when dues are first required to be paid, a member who has been suspended shall be reinstated upon the payment of the amount of dues at the time of suspension. Otherwise membership in the Association shall be terminated.

ARTICLE VI: PUBLICATION OF PROCEEDINGS

Section 1. The Executive Secretary shall furnish the minutes and proceedings of the regular meetings for publication as soon thereafter as practicable.

Section 2. The Executive Secretary shall furnish to each member, except as provided in Article V, Section 2, a copy of this publication.

Section 3. The Treasurer shall upon the certification of the Executive Secretary pay all bills for printing and publication of the proceedings of the regular conventions.

Section 4. No paper shall be published in the minutes or in any magazine or paper as a part of the transactions of this Association except with the approval of the Trustees. All papers read at any session of the Association or its sections shall become the property of the Association, and when so requested the Board of Trustees may cause the same to be copyrighted in the name of the Trustees; but unless prohibited by the Trustees, the authors of all papers read at sessions of the Association or its sections may cause the same to be published, and, if approved by the Trustees, they may be published as a

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part of the transactions of the Association. No paper or magazine shall be entitled to the exclusive publication of any paper read before the Association or its sections except by vote of the Trustees.

ARTICLE VII: SECTIONS

Whenever a section is established by the Association or Trustees as provided in the Constitution, the President shall appoint a chairman and secretary thereof; and thereupon any delegate or member of the Association may become a member of such section by enrollment therein. When ten (10) or more delegates or members have so enrolled, the chairman shall call a meeting of such delegates or members, and they may thereupon make proper rules and by-laws for the guidance of such section, subject to the approval of the Trustees; and such rules may provide for the method of holding meetings, election of officers, and other matters necessary or important for the proper conduct of the section. The chairman and secretary appointed by the President shall act until their successors are chosen by the members of the section in accordance with the by-laws established by such section.

ARTICLE VIII: GUESTS

Delegates and members of the Association may have the privilege of inviting guests to the meetings, under such rules and regulations as the Trustees may from time to time provide. Guests thus introduced shall be permitted to participate in discussion.

ARTICLE IX: DISCIPLINE

Section 1. All charges of violation and infraction of rules or unbecoming conduct shall be referred to a special investigating committee of five appointed by the President.

Section 2. Due notice of the charges shall be given to the alleged offender, in writing, by the Executive Secretary of the Association.

Section 3. The Association shall have the right and authority to reprimand, suspend and expel any delegate or member guilty of violation of any of the provisions of the constitution or by-laws of the Association, after a full and fair investigation shall have been made.

Section 4. A four-fifths vote shall be necessary to sustain the action of such committee.

ARTICLE X: AMENDMENTS

These by-laws may be amended as provided by Article IX of the constitution.

TWENTY-FOURTH ANNUAL CONFERENCE—1922
MEMBERSHIP REGISTRATION—GEOGRAPHICAL

State	Personal Members	Institutional Delegates
Alabama	3	..
Colorado	3	..
Connecticut	12	11
District of Columbia.....	3	2
Delaware	3	2
Florida	2	1
Georgia	1	1
Illinois	34	15
Indiana	4	1
Iowa	4	1
Kansas	1	1
Kentucky	3	1
Louisiana	2	2
Maine	3	1
Maryland	10	8
Massachusetts	43	23
Michigan	17	13
Minnesota	10	5
Mississippi	1	..
Missouri	7	4
New Jersey	27	11
New York	120	76
New Hampshire	2	1
North Carolina	10	1
North Dakota	1	..
Ohio	41	27
Oklahoma	1	1
Pennsylvania	81	61
Rhode Island	5	1
South Carolina	5	2
South Dakota	1	..
Tennessee	3	..
Texas	4	4
Utah	2	2
Vermont	4	..
Virginia	4	1
Washington	1	1
West Virginia	2	..
Wisconsin	4	2
Canada	19	6
	<hr/> 503	<hr/> 289
<i>Total Official Registration.....</i>		792

All Personal Members attending the Twenty-fourth Conference and all Institutional Members sending delegates are indicated by an asterisk before their names in the lists of members printed at the end of the report of the sessions. These lists can, therefore, be used as registration lists.

The total attendance of the Conference, including all persons given official badges, exceeded three thousand.

INSTITUTIONAL MEMBERSHIP OF THE AMERICAN HOSPITAL ASSOCIATION

ACTIVE

* Indicates registration of voting delegates at the 1922 Conference.

ALABAMA

Moody Hospital, Dothan, Miss Ida S. Inscor, R.N., Superintendent.

ARKANSAS

St. John's Hospital, Fort Smith, Miss Eva Atwood, Superintendent.

CALIFORNIA

Columbia Hospital, San Jose, Mr. H. D. Jenkins, Superintendent.

French Hospital, San Francisco, Mr. Geo. Tessier, Superintendent.

Samuel Merritt Hospital, Oakland, Mr. H. S. Hudd, Superintendent.

Methodist Hospital of Southern California, Los Angeles, Miss Ruth Hartzell, R. N., Superintendent.

Murphy Memorial Hospital, Whittier, Miss Elsie Peacock, Superintendent.

Orthopaedic Hospital School, Los Angeles, Miss Mary L. Binger, R.N., Superintendent.

St. Francis Hospital, San Francisco, Mr. J. J. O'Connor, Superintendent.

St. Luke's Hospital, San Francisco, Dr. Wm. R. Dorr, Superintendent.

Santa Barbara Cottage Hospital, Santa Barbara, Miss Florence C. Johnson, R. N., Superintendent.

Scotia Hospital, Scotia, Drs. E. L. & C. C. Cottrell, Physicians in Charge.

South San Francisco Hospital, South San Francisco, Miss M. Belli, Superintendent.

University of California Medical School and Hospitals, San Francisco, Dr. W. E. Musgrave, Superintendent.

Florence M. Ward Sanatorium, San Francisco, Miss Irene M. Ferguson, Superintendent.

COLORADO

Community Hospital, Boulder, Miss Martha M. Russell, Superintendent.

Park Avenue Hospital, Denver, Mr. H. Lamborn, Superintendent.

Presbyterian Hospital of Colorado, Denver.

CONNECTICUT

Bristol Hospital, Bristol, Miss Anna M. Goodhall, R.N., Superintendent.

Englewood Hospital, Bridgeport, Mrs. K. A. Budds, Superintendent.

***Grace Hospital, New Haven, Miss J. Alison Hunter, R.N., Superintendent.

*Greenwich Hospital, Greenwich, Dr. S. Ragsdale, Superintendent.

Hartford Dispensary, Hartford, Dr. James Raglan Miller, Physician-in-Chief.
Lawrence and Memorial Associated Hospital, New London, Miss K. M. Prindiville, R.N., Superintendent.

*Manchester Memorial Hospital, S. Manchester, Miss Hanna Malmgren, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

***Meriden Hospital, Meriden, Miss Marion J. Wells, R.N., Superintendent.
St. Mary's Hospital, Waterbury, Mother Superior in charge.

***Stamford Hospital, Stamford, Miss Evelyn M. Wilson, Superintendent.

DELAWARE

**Homeopathic Hospital, Wilmington, Miss M. Louise Pugh, R.N., Superintendent.

DISTRICT OF COLUMBIA

**Children's Hospital of D. C., Miss Mattie M. Gibson, Superintendent.

FLORIDA

*Miami City Hospital, Miami, Miss A. Royce, Superintendent.

GEORGIA

City Hospital, Columbus, Miss N. W. Tew, Superintendent.

Macon Hospital, Macon, Mr. L. C. Brown, Superintendent.

University Hospital, Augusta, Dr. Carlisle S. Lentz, Superintendent.

*Wesley Memorial Hospital, Atlanta, Mr. Walker White, Superintendent.

IDAHO

St. Luke's Hospital and Training School, Ltd., Boise, Miss Emily Pine, Superintendent.

ILLINOIS

Aurora Hospital, Aurora, Mr. J. W. Meyer, Manager.

Brokaw Hospital, Normal, Miss L. J. Justis, R.N., Superintendent.

Julia F. Burnham Hospital, Champaign, Miss Maud M. Northwood, Superintendent.

Central Free Dispensary, Chicago, Mrs Gertrude Howe Britton, Superintendent.

**Chicago General Hospital, Chicago, Dr. Wm. C. Spangenberg, Superintendent.

*Englewood Hospital, Chicago, Dr. E. T. Olsen, Superintendent.

**Evangelical Deaconess Hospital, Chicago, Rev. H. J. Bauernfeind, Superintendent.

**German Evangelical Deaconess Hospital, Chicago, Rev. F. Weber, Superintendent.

Hahnemann Hospital, Chicago, Mrs. V. A. Horner, Superintendent.

Jarman Memorial Hospital, Tuscola, Miss Florence R. Schrader, Superintendent.

Kewanee Public Hospital, Kewanee, Miss Adelaide M. Lewis, R.N., Superintendent.

Mercy Hospital, Chicago, Sister Mary Rita, Superintendent.

Michael Reese Dispensary, Chicago, Mr. John E. Ransom, Superintendent.

Michael Reese Hospital, Chicago, Dr. Herman Smith, Superintendent.

*Norwegian-American Hospital, Chicago, Miss Alma C. Olsen, Superintendent.

Olney Sanitarium, Olney, Miss Katharina Weber, Superintendent.

Passavant Memorial Hospital, Chicago, Miss Charlotte Christian, Superintendent.

Passavant Memorial Hospital, Jacksonville, Miss Ida B. Venner, R.N., Superintendent.

*Presbyterian Hospital, Chicago, Mr. Asa S. Bacon, Superintendent.

John C. Proctor Hospital, Peoria, Miss Grace I. Perrin, R. N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Provident Hospital & Training School, Chicago, Miss Evelyn M. Kimmell, Superintendent.
Rockford Hospital, Rockford, Miss Blanche Easton, R.N., Superintendent.
St. Luke's Hospital, Chicago, Mr. Charles A. Wardell, Superintendent.
***Sherman Hospital, Elgin, Miss C. Irene Oberg, Superintendent.
Silver Cross Hospital, Joliet, Miss Marie C. Petersen, Superintendent.
South Chicago Hospital, Chicago, Miss Gertrude A. Briggs, R.N., Superintendent.
Swedish-American Hospital, Rockford, Miss Elsa Rudolph, Superintendent.
Mary Thompson Hospital, Chicago, Dr. W. L. Kacin, Superintendent.
Victory Memorial Hospital, Waukegan, Miss Elizabeth Ann Asseltine, R.N., Superintendent.
Washington Park Hospital, Chicago, Dr. C. O. Young, Superintendent.
*Wesley Memorial Hospital, Chicago, Mr. E. S. Gilmore, Superintendent.
*West Suburban Hospital Association, Oak Park, Mr. E. J. Hockaday, Superintendent.

INDIANA

- Elkhart General Hospital, Elkhart, Miss Mary E. MacDonald, R.N., Superintendent.
Lafayette Home Hospital, Lafayette, Miss Margaret Rogers, Superintendent.
*Robert W. Long Hospital, Indianapolis, Mr. Robert E. Neff, Administrator.
Muncie Home Hospital, Muncie, Miss Bernetha M. Smith, R.N., Superintendent.
Protestant Deaconess Hospital, Evansville, Sister Carolina Braun, Superintendent.
St. Antonio Hospital, Gary, Miss Sheila Farrell, R.N., Superintendent.
St. John's Hospital, Anderson, Sister Sabina, Superior.
Union Hospital, Terre Haute, Dr. Charles N. Combs, Superintendent.
Walker Hospital, Evansville, Drs. Walker and Welborn, Owners.

IOWA

- Des Moines General Hospital, Des Moines, Dr. F. J. Trenery, Superintendent.
Finley Hospital, Dubuque, Miss N. Adele Northrop, R.N., Superintendent.
W. G. Graham Hospital, Keokuk, Miss Mary C. Jackson, R.N., Superintendent.
Henry and Catherine L. Hand Hospital, Shenandoah, Miss Margaret S. MacDonald, R.N., Superintendent.
Iowa Methodist Hospital, Des Moines, Dr. C. C. Hurin, Superintendent.
*St. Luke's Hospital, Davenport, Miss Martha Baker, R.N., Superintendent.
Washington County Hospital, Washington, Miss Elizabeth Finlay, Superintendent.

KANSAS

- Arkansas City Hospital, Arkansas City, Dr. R. C. Young, Superintendent.
Brinkley-Jones Hospital, Inc., Milford, Dr. J. R. Brinkley, Chief Surgeon.
Halstead Hospital, Halstead, Miss Anna K. Essig, Superintendent.
Hatcher Hospital, Wellington, Dr. A. R. Hatcher, President and Superintendent.
Hutchinson Methodist Hospital, Hutchinson, Miss Grace E. Lansing, R.N., Superintendent.
*McPherson County Hospital, McPherson, Miss Dena Gronewold, R.N., Superintendent.
Mercy Hospital, Fort Scott, Mother Superior in Charge.
Wesley Hospital and Nurse Training School, Wichita, Rev. L. M. Riley, Superintendent.
Wichita Hospital, Wichita, Mr. Samuel G. Ascher, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

KENTUCKY

- *Children's Free Hospital, Louisville, Miss Annette B. Cowles, Superintendent.
- Louisville City Hospital, Louisville, Dr. Henry E. Tuley, Superintendent.
- Norton Memorial Infirmary, Louisville, Miss Alice M. Gaggis, R.N., Superintendent.

LOUISIANA

- Charity Hospital of Louisiana, New Orleans, Dr. W. W. Leake, Superintendent.
- Flint-Goodrich Hospital, Dr. T. Restin Heath, Superintendent.
- North Louisiana Sanitarium, Shreveport, Dr. Louis Abramson, Superintendent.
- Presbyterian Hospital of New Orleans, New Orleans, Dr. Henry Ladd Stickney, Superintendent.
- *Shreveport Charity Hospital, Shreveport, Dr. W. P. Morrill, Superintendent.
- *Touro Infirmary, New Orleans, Dr. John D. Spellman, Superintendent.

MAINE

- *Eastern Maine General Hospital, Bangor, Dr. George H. Stone, Superintendent.
- Presque Isle General Hospital, Presque Isle, Miss Margaret B. Cowan, R.N., Superintendent.

MARYLAND

- **Church Home & Infirmary, Baltimore, Miss Jane E. Nash, Superintendent.
- *Franklin Square Hospital, Baltimore, Dr. Newton I. Parr, Superintendent.
- *Hebrew Hospital, Baltimore, Miss Ada R. Rosenthal, R.N., Superintendent.
- *Hospital for the Women of Maryland, Baltimore, Miss Stella W. Sampson, Superintendent.
- *Jewish Home for Consumptives, Reisterstown, Dr. Albert F. Shrier, Superintendent.
- **Johns Hopkins Hospital, Baltimore, Dr. Winford H. Smith, Superintendent.
- Maryland General Hospital, Baltimore, Dr. George C. Peck, General Superintendent.
- *Union Memorial Hospital, Baltimore, Miss Roberta L. Ball, R.N., Superintendent.

MASSACHUSETTS

- Athol Memorial Hospital, Athol, Mrs. Sarah D. Kendall, Superintendent.
- **Beth Israel Hospital, Boston, Dr. Boris E. Greenberg, Superintendent.
- **Boston Dispensary, Boston, Mr. Frank E. Wing, Director.
- *Boston Lying-in Hospital, Boston, Miss Louise S. Zutter, Superintendent.
- Peter Bent Brigham Hospital, Boston 17, Dr. Joseph B. Howland, Superintendent.
- *Bristol County Tuberculosis Hospital, Attleboro, Dr. Adam S. MacKnight, Superintendent.
- *Brockton Hospital, Brockton, Dr. F. M. Hollister, Superintendent.
- Cambridge Hospital, Cambridge, Miss Josephine E. Thurlow, Superintendent.
- *Charles Choate Memorial Hospital, Woburn, Miss Edith F. Bennett, R.N., Superintendent.
- *Faulkner Hospital, Boston, Miss Ruth G. Clark, Superintendent.
- Franklin County Public Hospital, Greenfield, Miss Annie S. Barclay, R.N., Superintendent.
- **Harley Private Hospital, Dorchester, Boston, Miss Rose A. M. Harley, Superintendent.
- **Henry Heywood Memorial Hospital, Gardner, Miss Marietta D. Barnaby, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Collis P. Huntington Memorial Hospital, Boston, Miss Anna L. Gibson, R.N., Superintendent.
 Anna Jaques Hospital, Newburyport, Miss Violet L. Kirk, R.N., Superintendent.
 Leominster Hospital, Leominster, Miss Shannah N. Macfadden, R.N., Superintendent.
 Malden Hospital, Malden, Miss Rachael McEwen, Superintendent.
 Massachusetts Charitable Eye & Ear Infirmary, Boston, Dr. F. A. Washburn, Superintendent.
 Melrose Hospital, Melrose, Miss Melissa J. Cook, Superintendent.
 Memorial Hospital, Worcester, Miss Lucia L. Jaquith, R.N., Superintendent.
 ***New England Baptist Hospital, Boston, Miss Emma A. Anderson, R.N., Superintendent.
 **New England Deaconess Hospital, Boston, Miss Adeliza A. Betts, Superintendent.
 *Newton Hospital, Newton Lower Falls, Miss Bertha W. Allen, R.N.
 North Adams Hospital, North Adams, Miss Mary Larter, R.N., Superintendent.
 Quincy City Hospital, Quincy, Miss Katherine Hurley, Superintendent.
 St. Luke's Hospital, New Bedford, Miss Georgia M. Nevins, Superintendent.
 Springfield Hospital, Springfield, Mr. John C. Gardiner, Superintendent.
 **Union Hospital, Fall River, Miss Jessie M. Cann, Superintendent.
 Vincent Memorial Hospital, Boston, Miss Jean C. Fraser, Superintendent.
 Ware Hospital, Ware, Miss Mary L. Whitney, R.N., Superintendent.
 Wesson Maternity Hospital, Springfield, Miss Winifred H. Brooks, R.N., Superintendent.
 *Winchester Hospital, Winchester, Miss Bessie L. Norton, Superintendent.
 *Worcester Hahnemann Hospital, Worcester, Miss Suzanne M. Freeman, R.N., Superintendent.

MICHIGAN

- **Battle Creek Sanitarium, Battle Creek, Dr. J. H. Kellogg, Superintendent.
 Beyer Memorial Hospital, Ypsilanti, Miss Lettie E. Day, Superintendent.
 *Blodgett Memorial Hospital, Grand Rapids, Dr. C. W. Munger, Superintendent.
 Bronson Methodist Hospital, Kalamazoo, Mrs. E. G. Wildermuth, R.N., Superintendent.
 Children's Free Hospital, Detroit, Miss Margaret A. Rogers, Superintendent.
 Detroit Eye, Ear, Nose & Throat Hospital, Detroit, Dr. B. R. Shurley, Chief Executive.
 *W. A. Foote Memorial Hospital, Jackson, Miss L. Winifred Seckinger, Superintendent.
 **Grace Hospital, Detroit, Dr. W. L. Babcock, Superintendent.
 Hackley Hospital, Muskegon, Miss Grace D. McElderry, R.N., Superintendent.
 Harbor Beach Hospital, Harbor Beach, Dr. F. B. Van Nuys, Superintendent.
 Harper Hospital, Detroit, Dr. Stewart Hamilton, Superintendent.
 Highland Park General Hospital, Highland Park, Dr. Willard L. Quennell, Superintendent.
 *Hurley Hospital, Flint, Miss Anna M. Schill, R.N., Superintendent.
 Mercy Hospital, Grayling, Mother Superior in Charge.
 *Nichols Memorial Hospital, Battle Creek, Miss Emily Greenwood, Superintendent.
 ***Receiving Hospital, Detroit, Dr. T. K. Gruber, Superintendent.
 *Saginaw General Hospital, Saginaw, Mr. Karl L. Van Slyke, Superintendent.
 Saginaw Woman's Hospital, Saginaw, Miss Lydia Thompson, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

University Hospital, Ann Arbor, Dr. C. G. Parnall, Superintendent.
Westerlin Hospital, Iron Mountain, Dr. Wm. J. Anderson, Superintendent.
*Woman's Hospital, Detroit, Miss Carrie L. Eggert, Superintendent.

MINNESOTA

Bethesda Hospital, St. Paul, Minn., Rev. J. A. Krantz, Superintendent.
*City and County Hospital, St. Paul, Dr. Arthur B. Ancker, Superintendent.
***Deaconess Hospital, Minneapolis, Sister Marie Folkvard, Superintendent.
Fair Oaks Lodge Sanatorium, Wadena, Dr. George McL. Waldie, Superintendent.
Lake Julia Sanatorium, Puposky, Mr. R. L. Lancy, Superintendent.
Mayo Clinic, Rochester, Mr. H. J. Harwick, Business Manager.
Mineral Springs Sanatorium, Cannon Falls, Dr. Ernest Strader, Superintendent.
Minneapolis General Hospital, Minneapolis, Dr. Walter E. List, Superintendent.
*St. Luke's Hospital, Duluth, Dr. A. J. McRae, Superintendent.
St. Mary's Hospital, Rochester, Mother Superior in Charge.
Swedish Hospital, Minneapolis, Mr. Wm. Mills, Superintendent.
Western Minnesota Hospital, Graceville, Miss Anna M. Emge, R.N., Superintendent.
Winona General Hospital, Winona, Miss Catharine H. Allison, R.N., Superintendent.

MISSOURI

*Barnes Hospital, St. Louis, Dr. L. H. Burlingham, Superintendent.
*Christian Church Hospital, Kansas City, Dr. Rush E. Castelow, Superintendent.
Christian Hospital, St. Louis, Miss Elizabeth M. Gill, R.N., Superintendent.
Jewish Hospital of St. Louis, St. Louis, Miss Emma E. Wilson, Superintendent.
Levering Hospital, Hannibal, Miss Julia Cherny, R.N., Superintendent.
Missouri Baptist Sanitarium, St. Louis, Dr. B. A. Wilkes, Superintendent.
Research Hospital, Kansas City, Mr. Fred L. Wooddell, Superintendent.
St. Louis Baptist Hospital, St. Louis, Dr. C. C. Morris, Superintendent.
*St. Louis Maternity Hospital, St. Louis, Miss Isabelle M. Baumhoff, Superintendent.
*St. Luke's Hospital, St. Louis, Miss Frances Chappell, Superintendent.
Springfield Hospital, Springfield, Miss Vida R. Nevison, Superintendent.
Wheatley Provident Hospital, Kansas City, Dr. J. Edward Perry, Superintendent.

MONTANA

Murray Hospital, Butte, Dr. T. J. Murray, Physician in Charge.
St. Ann's Hospital, Anaconda, Mother Superior in Charge.

NEBRASKA

Fremont Hospital, Fremont, Mrs. Marie L. White, Superintendent.
Nebraska Methodist Episcopal Hospital, Omaha, Miss Blanche M. Fuller, Superintendent.
Swedish Mission Hospital, Omaha, Rev. Albin N. Osterholm, Superintendent.

NEVADA

Shaw Hospital, Elko, Mr. W. A. Shaw, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

NEW HAMPSHIRE

- Elliot Hospital, Manchester, Miss Helen Caverly, Superintendent.
*Mary Hitchcock Memorial Hospital, Hanover, Miss Ida Frances Shepard, R.N., Superintendent.
Memorial Hospital, North Conway, Miss Grace B. Beattie, Superintendent.
*Nashua Memorial Hospital, Nashua, Miss Martha A. Wallace, Superintendent.
New Hampshire Memorial Hospital, Concord, Miss May E. Barratt, Superintendent.
Margaret Pillsbury Hospital, Concord, Miss Mary L. Whittaker, R.N., Superintendent.

NEW JERSEY

- Nathan & Miriam Barnert Memorial Hospital, Paterson, Mr. David Schwab, Superintendent.
*Burlington County Hospital, Mount Holly, Miss Elizabeth W. Ancker, Superintendent.
*Dover General Hospital, Dover, Miss Elizabeth Miller, Superintendent.
Hackensack Hospital, Hackensack, Miss Mary J. Stone, Superintendent.
**Middlesex General Hospital, New Brunswick, Miss R. N. Clement, R.N., Superintendent.
**Monmouth Memorial Hospital, Long Branch, Mrs. Martha M. Scott, R.N., Superintendent.
*Muhlenberg Hospital, Plainfield, Miss Marie Louis, R.N., Superintendent.
Newark Beth Israel Hospital, Newark, Dr. Paul Keller, Superintendent.
**Passaic General Hospital, Passaic, Miss Margaret A. Wallace, Superintendent.
Paterson General Hospital Association, Paterson, Mr. Thomas R. Zulich, Superintendent.
*Presbyterian Hospital, Newark, Miss Almey C. Murray, R.N., Superintendent.
*Society of the Babies Hospital, Newark, Miss Florence P. Burns, R.N., Superintendent.
Somerset Hospital, Somerville, Miss J. B. Hamilton, R.N., Superintendent.
*West Hudson Hospital Association, Kearny, Miss Ann M. Radle, R.N., Superintendent.

NEW YORK

- Auburn City Hospital, Auburn, Miss Arvilla E. Everingham, Superintendent.
Mary Imogene Bassett Hospital, Cooperstown, Mr. Wm. O. Soekland, Superintendent.
*Beekman Street Hospital, New York City, Miss Marion Whidden, Superintendent.
**Bellevue Hospital, New York City, Dr. Geo. D. O'Hanlon, Physician in Charge.
*Beth David Hospital, New York City, Dr. Simon Tannenbaum, Superintendent.
Beth Israel Hospital, New York City, Mr. Louis J. Frank, Superintendent.
*Binghamton City Hospital, Binghamton, Mr. Jerome F. Peck, Superintendent.
Bradford Street Hospital, Brooklyn, Miss Margaret Lacey, Chief Nurse.
Broad Street Hospital, New York City, Dr. A. J. Barker Savage, Superintendent.
Broad Street Hospital, Oneida, Miss Jessie Broadhurst, R.N., Superintendent.
***Brooklyn Hospital, Brooklyn, Dr. Willis G. Nealley, Superintendent.
Buffalo Columbus Hospital, Buffalo, Dr. George C. Barone, Superintendent.
***Buffalo Homeopathic Hospital, Buffalo, Mr. C. A. Lindblad, Superintendent.
**Bushwick Hospital, Brooklyn, Mrs. Charles D. Hommel, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- ***Central Neurological Hospital, Welfare Island, Mr. Joseph A. Lanahan, Superintendent.
- City Hospital, Welfare Island, Dr. Charles B. Bacon, Physician in Charge.
- City of Kingston Hospital, Kingston, Miss Ednah C. Smith, R.N., Superintendent.
- *Coney Island Hospital, Brooklyn, Dr. Adam Eberle, Medical Superintendent.
- *Cumberland Street Hospital, Brooklyn, Dr. William F. Jacobs, Physician in Charge.
- *Fifth Avenue Hospital, New York City, Dr. Wiley E. Woodbury, Director.
- ***Flower Hospital, New York City, Mr. Louis C. Trimble, Superintendent.
- Fordham Hospital, New York City.
- **General Hospital of Saranac Lake, Saranac Lake, Miss Emily Denton, Superintendent.
- Glens Falls Hospital, Glens Falls, Miss Florence M. V. Lutts, Superintendent.
- Gouverneur Hospital, New York City, Miss Jessie A. Stowers in Charge.
- *Greenpoint Hospital, Brooklyn, Dr. Raymond G. Laub, Medical Superintendent.
- Harlem Hospital, New York City, Mr. C. D. O'Neil in Charge.
- Highland Hospital, Rochester, Dr. George B. Landers, Superintendent.
- Hospital & Dispensary for Deformities and Joint Diseases, New York City, Mr. Chas. F. Diehl, Superintendent.
- ***House of the Good Samaritan, Watertown, Miss Mabel Hibbard, Superintendent.
- **Huntington Hospital, Huntington, Miss Bessie M. Upham, R.N., Superintendent.
- *Ithaca City Hospital, Ithaca, Mrs. Genevieve M. Clifford, Superintendent.
- *Jamestown General Hospital, Jamestown, Miss Marie Robertson, R.N., Superintendent.
- Jewish Hospital of Brooklyn, Brooklyn, Mr. I. B. Schmidt, Superintendent.
- *Kings County Hospital, Brooklyn, Dr. Mortimer D. Jones, Medical Superintendent.
- Kingston Avenue Hospital, Brooklyn, Dr. W. T. Cannon, Physician in Charge.
- Knickerbocker Hospital, New York City, Miss Lucy M. Moore, R.N., Superintendent.
- ***Lincoln Hospital & Home, New York City, Dr. Frederick W. Gwyer, Superintendent.
- *Nathan Littauer Hospital, Gloversville, Miss Emily F. Merwin, R.N., Superintendent.
- **Lutheran Hospital, Brooklyn, Miss Augusta E. Abel, R.N., Superintendent.
- *Manhattan Maternity & Dispensary, New York City, Miss Emily E. Porter, Superintendent.
- **Mary McClellan Hospital, Cambridge, Miss M. M. Sutherland, Superintendent.
- **Memorial Hospital for Treatment of Cancer & Allied Diseases, New York City, Mr. George F. Holmes, Superintendent.
- **Metropolitan Hospital, Welfare Island, Dr. Walter H. Conley, Medical Superintendent.
- Metropolitan Life Insurance Co. Sanatorium, Mt. McGregor, Dr. Horace J. Howk, Physician in Charge.
- *Montefiore Home & Hospital for Chronic Diseases, New York City, Mr. M. D. Goodman, Superintendent.
- *Mt. Sinai Hospital, New York City, Dr. S. S. Goldwater, Director.
- **Municipal Sanatorium for Tuberculosis, Otisville, Orange County, Dr. Donald D. Campbell, Physician in Charge.
- Neponsit Hospital, Neponsit, L. I., Miss Josephine T. Brass in Charge.

AMERICAN HOSPITAL ASSOCIATION

- *New Rochelle Hospital, New Rochelle, Mr. Charles Crane, Superintendent.
- *New York City Children's Hospital, Randall's Island, Dr. James F. Vavasour, Physician in Charge.
- New York Nursery & Child's Hospital, New York City, Mrs. F. W. Kinsey, Superintendent.
- New York Society for the Relief of Ruptured and Crippled, New York City, Mr. Joseph D. Flick, Superintendent.
- ***Norwegian Lutheran Deaconess Home & Hospital, Brooklyn, Rev. C. O. Pedersen, Superintendent.
- *Olean General Hospital, Olean, Mrs. Ethel H. Bates, Superintendent.
- Park Avenue Hospital, Rochester, Miss Mary E. Morris, Superintendent.
- *Willard Parker Hospital, New York City, Dr. E. Giddings, Physician in Charge.
- *Presbyterian Hospital, New York City, Dr. C. H. Young, Superintendent.
- Queensboro Hospital, Jamaica, L. I., Dr. F. S. Westmoreland, Physician in Charge.
- *Reconstruction Hospital, New York City, Mr. Robert Stuart, Superintendent.
- Riverside Hospital, New York City, Dr. T. F. Joyce, Physician in Charge.
- *Rochester General Hospital, Rochester, Miss Mary L. Keith, Superintendent.
- *Rochester Homeopathic Hospital, Rochester, Miss Maude L. Johnston, Superintendent.
- Rome Hospital, Rome, Miss E. L. Burn, R.N., Superintendent.
- St. Francis Hospital, Port Jervis, Mother Superior in Charge.
- *St. Luke's Home & Hospital, Utica, Mr. I. W. J. McClain, Superintendent.
- *Sea View Hospital, Staten Island, Dr. Geza Kremer, Physician in Charge.
- **Society of the New York Hospital, New York City, Dr. Thomas Howell, Superintendent.
- Soldiers' and Sailors' Memorial Hospital, Penn Yan, Mrs. Ella M. Gibson, Superintendent.
- *Staten Island Hospital, Tompkinsville, Dr. M. Z. Westervelt, Superintendent.
- Summit Park Sanatorium, Pomona, Mr. W. J. Ryan, Superintendent.
- Frederick Ferris Thompson Hospital, Canandaigua, Miss Elsie K. Kraemer, R.N., Superintendent.
- ***Woman's Hospital in the State of New York, New York City, Mr. James U. Norris, Superintendent.

NORTH CAROLINA

- Clarence Barker Memorial Hospital, Biltmore, Miss Mary P. Laxton, R.N., Superintendent.
- City Memorial Hospital, Winston-Salem, Dr. T. C. Redfern, Superintendent.
- Edgecombe General Hospital, Tarboro, Miss Ethel L. Kelleher, Superintendent.
- Rutherford Hospital, Rutherfordton, Miss Emily A. Holmes, R.N., Superintendent.
- St. Agnes Hospital, Raleigh, Dr. Jessie A. Duncan, Superintendent.
- *Watts Hospital, West Durham, Miss Nina P. Davison, Superintendent.

NORTH DAKOTA

- St. Luke's Hospital, Fargo, Mrs. Gertrude W. Fuller, R.N., Superintendent.

OHIO

- Alliance City Hospital, Alliance, Miss Charlotte A. Frye, R.N., Superintendent.
- Ashtabula General Hospital, Ashtabula, Mr. B. P. Creelman, Superintendent.
- Bethesda Hospital, Zanesville, Miss Lillian L. Allen, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Brown Memorial Hospital, Conneaut, Miss Jessie J. Hubbard, Superintendent.
 Cherrington Hospital, Logan, Miss Eva Crutcher, Superintendent.
 ***Christ Hospital, Cincinnati, Miss Alice P. Thatcher, Superintendent.
 Cincinnati Sanitarium, Cincinnati, Dr. F. W. Langdon, Medical Director.
 City Hospital, Bellaire, Miss Mary R. Osborne, Superintendent.
 City Hospital of Akron, Akron.
 Cleveland Homeopathic Hospital, Cleveland, Miss Alma C. Hogle, Superintendent.
 *Cleveland Hospital Council, Cleveland, Mr. Howell Wright, Executive Secretary.
 *Deaconess Hospital, Cincinnati, Rev. A. G. Lohman, Superintendent.
 *Episcopal Hospital for Children, Mt. Auburn, Cincinnati, Miss Harriet Southworth, Superintendent.
 Findlay Home & Hospital, Findlay, Miss Mary L. Margerum, Superintendent.
 Flower Deaconess Home & Hospital, Toledo, Miss Anna K. Volger, Superintendent.
 *Good Samaritan Hospital, Cincinnati, Mother Superior in Charge.
 Good Samaritan Hospital, Sandusky, Miss Cora A. Kromer, R.N., Superintendent.
 Good Samaritan Hospital, Zanesville, Mother Superior in Charge.
 Grace Hospital, Cleveland, Miss Alice C. Graham, R.N., Superintendent.
 Holzer Hospital, Gallipolis, Dr. Chas. E. Holzer, Owner.
 Jewish Hospital, Cincinnati, Mr. Louis C. Levy, Superintendent.
 Lake County Hospital Association, Painesville, Mrs. Grace Bond, R.N., Superintendent.
 ***Lakeside Hospital, Cleveland, Dr. R. H. Bishop, Jr., Director.
 Lima Hospital Society, Lima, Miss Martha Lambert, Superintendent.
 *Mansfield General Hospital, Mansfield, Mr. H. R. Taubken, Superintendent.
 *Martins Ferry Hospital, Martins Ferry, Miss Anna F. Obrist, Superintendent.
 Mary Day Nursery & Children's Hospital, Akron, Mr. Arthur O. Bauss, Superintendent.
 Massillon Hospital Association, Massillon, Miss Nell F. Parrish, Superintendent.
 *Maternity & Children's Hospital, Toledo, Miss Mary E. Yager, R.N., Superintendent.
 **Maternity Hospital, Cleveland, Miss Calvina MacDonald, Superintendent.
 Memorial Hospital, Fremont, Miss Daisy C. Kingston, R.N., Superintendent.
 Memorial Hospital, Piqua, Miss Dessa H. Shaw, R.N., Superintendent.
 *Mercy Hospital, Hamilton, Mother Superior in Charge.
 Mercy Hospital, Toledo, Mother Superior in Charge.
 *Mt. Sinai Hospital, Cleveland, Mr. F. E. Chapman, Superintendent.
 **Rainbow Hospital for Crippled & Convalescent Children, South Euclid, Miss Mary B. Wilson, Superintendent.
 Robinwood Hospital, Toledo, Dr. E. B. Gillette, Superintendent.
 St. Ann's Maternity Hospital, Cleveland, Sister M. Geraldine in Charge.
 St. Elizabeth's Hospital, Youngstown, Mother Superior in Charge.
 ***St. John's Hospital, Cleveland, Mother Superior in Charge.
 **St. Luke's Hospital, Cleveland, Mr. C. B. Hildreth, Superintendent.
 *St. Vincent Charity Hospital, Cleveland, Mother Superior in Charge.
 *Salem City Hospital, Salem, Miss Nelle I. Templeton, R.N., Superintendent.
 Toledo Hospital, Toledo, Mr. P. W. Behrens, Superintendent.
 University Hospital, Columbus, Dr. J. A. Hatfield, Superintendent.
 Derrick T. Vail's Private Hospital, Cincinnati, Dr. D. T. Vail, Owner.
 Warren City Hospital, Warren, Miss Elizabeth Williams, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

Women's Hospital, Cleveland, Miss B. M. Truesdell, R.N., Superintendent.
 Youngstown Hospital Association, Youngstown, Mr. B. W. Stewart, Superintendent.

OKLAHOMA

El Reno Sanitarium, El Reno, Miss Lena A. Griep, R.N., Superintendent.
 Morningside Hospital, Tulsa, Mrs. D. I. Browne, Superintendent.
 *State University Hospital, Oklahoma City, Mr. Paul H. Fesler, Superintendent.

OREGON

Good Samaritan Hospital, Portland, Miss Emily L. Loveridge, Superintendent.

PENNSYLVANIA

*Abington Hospital, Abington, Miss M. F. Martin, R.N., Superintendent.
 *Allegheny General Hospital, Pittsburgh, Dr. G. Walter Zulauf, Superintendent.
 Altoona Hospital, Altoona, Miss K. M. Matter, Superintendent.
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 Morgan, Dr. M. B., Home Hospital, La Fayette.
 Morrison, Miss Caroline B., Soldiers' Home, La Fayette.
 Neff, Mr. Robert E., Administrator, Robert W. Long Hospital, Indianapolis.
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 Smith, Miss Bernetha M., Superintendent, Home Hospital, Muncie.
 Springer, Miss Elizabeth, Superintendent, Huntington County Hospital, Huntington.
 *Steele, Dr. M. F., Hope Methodist Hospital, Fort Wayne.
 Tracht, Miss Gail E., Home Hospital, La Fayette.
 Wetherill, Dr. Richard B., St. Elizabeth's Hospital, La Fayette.
 White, R.N., Mrs. Laura Fell, Superintendent, Goshen Hospital, Goshen.
 Willis, Miss Edith, Superintendent, Good Samaritan Hospital, Vincennes.
 *Woods, Dr. C. S., Executive Secretary, National Methodist Tuberculosis Sanatorium, Indianapolis.

IOWA

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 Beers, Miss Amy, Superintendent, Jefferson County Hospital, Fairfield.
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 Elder, Miss Mary E., Superintendent, Burlington Hospital, Burlington.
 Garrison, Miss Charlotte Jane, Superintendent, Sunny Crest Sanatorium, Dubuque.
 Gratiot, Dr. H. B., President Medical Staff, Finley Hospital, Dubuque.
 Greene, Mr. Norwood, Assistant Superintendent, State University Hospital of Iowa, Iowa City.
 Hanson, Rev. F. O., Superintendent, Iowa Lutheran Hospital, Des Moines.
 Jackson, Miss Mary C., Superintendent, W. C. Graham Hospital, Keokuk.
 Kern, Miss Barbara E. Jacobson, Synodical Presbyterian Hospital, Waterloo.
 *Landh, Miss S., Superintendent, St. Luke's Hospital, Cedar Rapids.
 *Lomas, Dr. A. J., Superintendent, University Hospital, Iowa City.
 *Marsh, R.N., Miss Lillian, Superintendent, Mary Frances Skiff Hospital, Newton.
 McNamara, Dr. F. P., Finley Hospital, Dubuque.
 Northrop, R.N., Miss N. Adele, Superintendent, Finley Hospital, Dubuque.
 Phillips, Miss Nina Lee, Assistant Superintendent, Burlington Hospital, Burlington.
 Sampson, Dr. F. E., Chief of Medical Staff, Greater Community Hospital, Creston.

AMERICAN HOSPITAL ASSOCIATION

Smylie, R.N., Miss Margaret S., Superintendent, New Samaritan Hospital, Sioux City.

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Shipley, Miss Stella, Superintendent, Wilson County, Neodesha.

Smith, Dr. F. R., Superintendent, Winfield Hospital, Winfield.

Wilson, Miss Pearl, Superintendent, Sabetha Hospital, Sabetha.

Winter, Dr. John S., Trustee, Liberal Hospital, Liberal.

KENTUCKY

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- *Hayden, Mrs. Sarah, Superintendent, Augusta General Hospital, Augusta.
- *Metcalf, Miss Rachel A., Superintendent, Central Maine General Hospital, Lewiston.
- Potter, Miss Lucy J., Superintendent, Trull Hospital, Biddeford.
- Robert, Miss Marquerite E., Bath City Hospital, Bath.
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- *Stone, Dr. George H., Superintendent, Eastern Maine General Hospital, Bangor.
- Trull, Dr. J., Frank, Trull Hospital, Biddeford.
- Washburne, Miss Ida, Eastern Maine General Hospital, Bangor.

MARYLAND

- *Ball, Miss Roberta L., Superintendent, Union Memorial Hospital, Baltimore.
- Bertrand, Sister M., Superintendent, St. Joseph's Hospital, Baltimore.
- *Clark, Dr. J. Clement, Superintendent, Springfield State Hospital, Sykesville.
- Cox, R.N., Miss E. Murray, Superintendent, Baltimore Eye and Ear Hospital, Baltimore.
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- Elliott, Miss Margaret, Assistant Superintendent, Church Home and Infirmary, Baltimore.
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- *Jones, Dr. Kenneth B., Director, University Hospital, Baltimore.
- Jordan, Mr. Wm. L., Manager, University Hospital, Baltimore.
- *Lawler, Miss E. M., Superintendent of Nurses, Johns Hopkins Hospital, Baltimore.
- *MacGowan, Dr. Birkhead, Superintendent, Sydenham Hospital, Baltimore.
- Nash, Miss Jane E., Superintendent, Church Home and Infirmary, Baltimore.
- *Nies, Miss Mary L., Superintendent, Frederick City Hospital, Frederick.
- *Rosenthal, Miss Ada R., Superintendent, Hebrew Hospital, Baltimore.
- Rothwell, Miss Katherine, Superintendent of Nurses, Sheppard and Pratt Hospital, Towson.
- *Smith, Dr. Winford H., Superintendent, Johns Hopkins Hospital.
- Wade, Dr. J. Percy, Medical Superintendent, Spring Grove State Hospital, Catonsville.
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- *Wise, Miss Helen V., Superintendent of Nurses, Peninsula General Hospital, Salisbury.

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- *Allen, Miss Bertha W., Superintendent, Newton Hospital, Newton Lower Falls.
- *Anderson, Miss Emma A., Superintendent, New England Baptist Hospital, Boston.
- *Anstead, Miss Ida J., Superintendent, House of Mercy Hospital, Pittsfield.
- Anthony, Mr. Deforest, Trustee, Union Hospital, Fall River.
- Arey, Dr. Harold C., Hospital Cottages for Children, Baldwinville.
- Armstrong, Dr. D. B., Community Health and Tuberculosis Demonstration, Framingham.
- *Avard, Miss Martha J., Superintendent, Addison Gilbert Hospital, Gloucester.
- Baker, Dr. Lewis F., Superintendent, Burbank Hospital, Fitchburg.
- Barclay, Miss Annie S., Superintendent of Nurses, Franklin County Public Hospital, Greenfield.

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- *Barnaby, Miss Marietta D., Superintendent, Henry Heywood Hospital, Gardner.
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- Bigelow, Mr. Wilbur B., Superintendent, Salem Hospital, Salem.
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- Brooks, Miss Winifred H., Superintendent, Wesson Maternity Hospital, Springfield.
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- *Cann, Miss Jessie M., Superintendent, Union Hospital, Fall River.
- *Cannon, Miss Ida M., Director, Social Service Department, Massachusetts General Hospital, Boston.
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- *Cook, Miss Melissa, Superintendent, Melrose Hospital, Melrose.
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- *Cox, Miss Edith, Superintendent, Robert Bent Brigham Hospital, Boston.
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- *Doherty, Miss Ethel M., Superintendent, Holyoke City Hospital, Holyoke.
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- Dowden, Miss Imilda L., Superintendent, W. B. Plunkett Memorial Hospital, Adams.
- Dowling, Mr. J. J., Superintendent, Boston City Hospital, Boston.
- *Drew, Dr. Chas. A., Superintendent, Worcester City Hospital, Worcester.
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- Eastman, Miss Sophia B., Massachusetts Charitable Eye and Ear Infirmary, Boston.
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- Emerson, Dr. Ernest B., Superintendent, Rutland State Sanatorium, Rutland.
- Emmott, Miss Susan E., Superintendent, Concord Deaconess Hospital, Concord.
- Ewin, Miss Hannah Jane, Superintendent, Free Hospital for Women, Brookline.
- Faxon, Dr. Nathaniel W., Massachusetts General Hospital, Boston.

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- *Gardiner, Mr. John C., Superintendent, Springfield Hospital, Springfield.
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- MacLeod, Miss May, Superintendent, MacLeod Hospital, Boston.
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- *Powell, Miss C. M., Superintendent of Nurses, Springfield Hospital, Springfield.
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- Ruggles, Miss Alice K., Superintendent, Infants' Hospital, Boston.
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- Shore, Mr. W. Frank, Trustee, Union Hospital, Fall River.
- Slattery, Dr. John R., Superintendent, St. Elizabeth's Hospital, Brighton.
- Smith, Miss Ida C., Superintendent, Children's Hospital, Boston.
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MICHIGAN

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 Barbour, Mr. W. T., Trustee, Grace Hospital, Detroit.
 *Bauch, Miss Laura, Superintendent, Edward W. Sparrow Hospital, Lansing.
 Beach, Mrs. Emmet L., Trustee, Woman's Hospital, Saginaw.
 *Bennett, Dr. J. E., Medical Superintendent, Eloise Hospital, Eloise.
 Booth, Mrs. Edmund W., Trustee, Butterworth Hospital, Grand Rapids.
 Bourke, Mr. M. P., Superintendent, Catholic Hospitals in Eastern Michigan, Ann Arbor.
 Brown, Miss Margaret, Superintendent, St. Johns Hospital, St. Johns.
 *Brown, Miss Olive J., Superintendent, Hillsdale Hospital, Hillsdale.
 Burley, Mr. Jacob H., Superintendent, Burley Hospital, Almont.
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 *Davidson, Mr. Sidney G., Superintendent, Butterworth Hospital, Grand Rapids.
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 Eckman, Miss Rena S., University Hospital, Ann Arbor.
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- *Munger, Dr. C. W., Superintendent, Blodgett Memorial Hospital, Grand Rapids.
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- Nichols, R.N., Miss Lillian I., Assistant Superintendent, Woman's Hospital, Saginaw.
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- Ostrander, Dr. Herman, Superintendent, State Hospital, Kalamazoo.
- *Phillips, Mr. George E., Superintendent, Herman Kiefer Hospital, Detroit.
- Poole, Miss Imogene, University Hospital, Ann Arbor.
- Quennell, Dr. Willard L., Superintendent, Highland Park General Hospital, Highland Park.
- *Rogers, Miss Margaret A., Superintendent, Children's Free Hospital, Detroit.
- Rumstrom, Mr. A. H., Twin City Hospital, Ironwood.
- *Schill, Miss Anna M., Superintendent, Hurley Hospital, Flint.
- Schlotman, Mr. J. B., Trustee, Harper Hospital, Detroit.
- *Search, Mr. W. Warren, J. B., Ford Co., Wyandotte.
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- Vaughan, Dr. Henry F., Commissioner, Department of Health, Detroit.
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- Young, Miss Lulu M., Purchasing Agent, Nicholls' Memorial Hospital, Battle Creek.

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MINNESOTA

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*Kippen, Miss Anna, Superintendent, Naeve Hospital, Albert Lea.

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*List, Dr. Walter E., Superintendent, Minneapolis General Hospital, Minneapolis.

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Mills, Mr. William, Superintendent, Swedish Hospital, Minneapolis.

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MISSOURI

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 Burman, R.N., Miss Mary G., Superintendent, Children's Mercy Hospital, Kansas City.
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 Chapman, Mr. J. W., Superintendent, Independence Hospital, Independence.
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 Coil, Dr. Paul E., Amanda Coil Hospital, Mexico.
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 *Xavier, Sister M., Superintendent, St. Joseph's Hospital, Reading.
 *Yearick, Mr. H. G., Superintendent, Homeopathic Hospital, Pittsburgh.
 *Yingst, Miss Edith E., Superintendent, Carlisle Hospital, Carlisle.
 Ziegler, Dr. Chas. Edward, Medical Director, Elizabeth Steel Magee Hospital, Pittsburgh.
 *Zulauf, Dr. G. Walter, Superintendent, Allegheny General Hospital, Pittsburgh.
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RHODE ISLAND

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 *Jones, Dr. Henry A., Superintendent, State Infirmary, Howard.
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- *Bates, Mr. F. O., Superintendent, Roper Hospital, Charleston.
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*Hedden, Dr. Henry, Superintendent, Methodist Hospital, Memphis.
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Agnes, Sister Mary, Superintendent, St. Mary's Hospital, Clarksburg.
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Dominic, Sister M., Wheeling Hospital, Wheeling.
Fuqua, Mr. C. B., Business Manager, St. Luke's Hospital, Bluefield.
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*Golden, Dr. Wm. W., Superintendent, Davis Memorial Hospital, Elkins.
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WYOMING

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Dickson, Mr. E. Mack, Superintendent, Toronto Free Hospital for Consumptives, Weston, Ontario.

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- Garvin, Miss Gertrude P., Superintendent of Nurses, Isolation Hospital, Ottawa, Ontario.
- *Gosselin, Dr. J., Superintendent, Civic Hospital, Quebec, Quebec.
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- Keegan, Dr. L. S., Superintendent, St. John's Hospital, St. Johns, Newfoundland.
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- *Scott, Miss Kathleen, Superintendent, Sarnia General Hospital, Sarnia, Ontario.
- Seymour, Dr. M. M., Commissioner of Public Health, Province of Saskatchewan, Regina, Saskatchewan.
- Shaw, Miss May, Superintendent, Jeffrey Hale's Hospital, Quebec, Quebec.
- *Shirriff, Mr. W. T., Superintendent, Isolation Hospital, Ottawa, Ontario.
- Sieling, Mr. E. N., Public School Department, Oshawa, Ontario.
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- *Stewart, Miss Mary C., Superintendent, Guelph General Hospital, Guelph, Ontario.
- Stoker, Mr. George, Secretary, Winnipeg Municipal Hospitals, Winnipeg, Manitoba.
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NOVA SCOTIA

- Kenney, Mr. Wallace W., Superintendent, Victoria General Hospital, Halifax, Nova Scotia.
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FOREIGN

- Baxter, Dr. Donald E., Superintendent, Peking Union Medical College Hospital, Peking, China.
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- Seem, Dr. Ralph B., Peking Union Medical College Hospital, Peking, China.
- Sloan, Dr. T. Dwight, Assistant Medical Superintendent, Peking Union Medical College Hospital, Peking, China.
- Soto, Dr. Enrique Fernandez, Clinics Bustamonte Nunez, Havana, Cuba.
- Walker, Dr. Eugene, Walher Building, Hamilton, Bermuda.

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- *Ball, Dr. O. F., President, Modern Hospital Publishing Company, Chicago, Ill.
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- *Bishop, Mr. Howard E., Superintendent, Robert Packer Hospital, Sayre, Pa.
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- *Cumming, Miss Margaret M., Superintendent, Christian H. Buhl Hospital, Sharon, Pa.
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- Milne, Mrs. T., 37 Academy St., St. Catharines, Ontario.
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- Prentiss, Mr. F. F., President, St. Luke's Hospital, Cleveland, Ohio.
- *Ransom, Mr. John E., Superintendent, Michael Reese Dispensary, Chicago, Ill.
- *Rhodes, Mr. E. Burnell, 2228 W. Tioga St., Philadelphia, Pa.
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- Tinkham, Miss Florence I., 117 Walnut St., Gowanda, N. Y.
- Towns, Dr. Charles B., 293 Central Park West, New York, N. Y.
- *Warner, Dr. A. R., Executive Secretary, American Hospital Association, Chicago, Ill.
- *Webster, Mr. H. E., Superintendent, Royal Victoria Hospital, Montreal, Quebec.

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Kirkbride, Esq., Franklin B., 7 Wall St., New York, N. Y.
Lodge, Hon. Frank T., Detroit, Mich.
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Mosher, Dr. J. Montgomery, 170 Washington Ave., Albany, N. Y.
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Smith, Dr. R. W. Bruce, Parliament Bldg., Toronto, Ontario.
Stockwell, Mr. Herbert G., 833 Land Title Bldg., Philadelphia, Pa.
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CORRECT ADDRESSES UNKNOWN

Mail addressed to the following personal members has been returned from the addresses given. If any reader can supply better addresses for any of these members, please send it in:

Miss Minnie F. Alexander, Asst. Supt., Brinkley-Jones Hospital, Milford, Kansas.
Miss Edna M. Crandell, R.N., Principal, University of Homeopathic Hospital, Ann Arbor, Mich.
Dr. Harry S. King, Superintendent, Michigan Mutual Hospital, Detroit, Mich.
Miss Lenna Matthews, Superintendent, Saginaw General Hospital, Saginaw, Mich.
Miss Ada M. Rorke, Michigan Mutual Hospital, Detroit, Mich.
Miss Belle E. Langley, Dent, Minn.
Miss Estella M. Keemer, York Hospital, York, Pa.
Miss Beatrice E. Ritter, Allentown Hospital, Allentown, Pa.
Mr. Walter E. Froud, Superintendent, Iroquois Falls Hospital, Iroquois Falls, Ont.
Miss Isabel Welsh, 200 Adelphi St., Brooklyn, N. Y.
Dr. J. M. Lawler, 37 Madison Ave. Corp., New York, N. Y.
Mr. Wilson R. Cassell, 1285 Boulevard, New Haven, Conn.
Miss Clara B. Pound, Lafayette Home Hospital, Lafayette, Ind.
Miss Gertrude I. McKee, R.N., Milwaukee Children's Hospital, Milwaukee, Wis.
Miss Mary E. Trasher, Superintendent, Robert B. Brigham Hospital, Boston, Mass.
Miss Anna Medendorp, Superintendent, Home Hospital, LaFayette, Ind.
Mr. Francis C. Matthews, Superintendent, New Samaritan Hospital, Sioux City, Iowa.

EXPOSITION OF HOSPITAL BUILDING MATERIALS, EQUIPMENT AND SUPPLIES

EXHIBITORS PRACTICALLY GUARANTEED BY THE ASSOCIATION

The Trustees of the Association have passed the following resolutions:

RESOLVED that the Executive Secretary be and hereby is authorized and instructed, whenever so requested by any hospital, to undertake the settlement and adjustment of any question arising from the purchase during the Conference of any article from any exhibitor at the 1922 Conference of the Association and to act likewise for any Institutional Member regarding any purchase from an exhibitor at this Conference made during the period between the 1922 and 1923 Conferences, the object being to assure hospitals, and particularly to Institutional Members, satisfactory results from dealings with those who are permitted to exhibit at the Association meetings.

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L. C. Walker, New York (Baker Linen Co.), Representing Linen Supply
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T. D. Stern, 30 E. Randolph St., Chicago (Clark Linen Co.), Representing
Linen Supply Houses.
H. L. Kaufman, 15 School St., Boston (H. L. Kaufman & Co.), Representing
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J. E. Hall, Erie, Pa. (American Sterilizer Co.), Representing Sterilizer Con-
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- Troy Laundry Machinery Co., 133 Center St., New York City, Laundry Machinery.
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- D. P. Winne Co., Inc., 105 Worth St., New York City, Belfast Cord and all kinds of Cord Specialties.
- W. D. Young Co., Boston 27, Mass., U. S. Army Surplus Johnson & Johnson Sterilized Six Yard Bandages.

NON-COMMERCIAL EXHIBITS

AMERICAN HOSPITAL ASSOCIATION

- Service Bureau on Dispensaries and Community Relations, Michael M. Davis, Jr., Director. Booth 37.
- Service Bureau on Hospital Social Work, Miss Ida M. Cannon, Director. Booth 28.
- Committee on Flooring. The samples of various kinds of flooring materials tested by the Flooring Committee in the various ways described in the report were exhibited in Booth 148.
- Committee on Out-Patient Work. Last year this committee presented a model venereal clinic. This year the committee, in co-operation with The New York Association for the Prevention and Relief of Heart Diseases, presented a cardiac clinic—its internal organization, personnel and equipment in detail, and also information as to the aims and practical results of this work. This is the newest clinic to be added to the Dispensary. Booth 29.
- Committee on Gauze Renovation and Standard Dressings. This committee exhibited its findings, samples of renovated gauze and the proposed standard dressing in Booth 54.
- Exposition Committees. Buildings—Construction, Equipment and Maintenance. General Furnishings and Supplies. Clinical and Scientific Equipment and Supplies. Foods and Equipment for Food Service. Laundry Equipment and Supplies. Booth 58.

HOSPITAL LIBRARY AND SERVICE BUREAU OF THE AMERICAN CONFERENCE ON HOSPITAL SERVICE

The American Conference on Hospital Service and the Hospital Library and Service Bureau are integral parts of the general organization of the hospital field. To the Library every member of the American Hospital Association is contributing through the Association. The fact that other groups are also contributing should not lessen your pride and interest in its work. Liberal support from the Rockefeller Foundation has enabled the library to develop a real service in short time. The exhibit of hospital plans presented by the library is the largest collection of these plans ever made. Booths 32, 36 and 40.

AMERICAN ASSOCIATION OF HOSPITAL SOCIAL WORKERS

Office for the consultation and presentation of compiled information on hospital social work in Booth 24.

AMERICAN LIBRARY ASSOCIATION

The exhibit of the American Library Association attracted much favorable comment at the meeting of the American Medical Association. It was repeated here for its service in helping every hospital to develop its library. Booth 45.

AMERICAN HOSPITAL ASSOCIATION

NEW YORK ASSOCIATION FOR THE PREVENTION AND RELIEF OF HEART DISEASE

In co-operation with the Committee on Out-Patient Work of the Association, the New York Association for the Prevention and Relief of Heart Disease presented the essentials of a cardiac clinic. Booth 29.

NEW YORK ACADEMY OF MEDICINE

Recently the New York Academy of Medicine made a very careful and thorough survey of the hospitals of the City of New York. The findings of this survey, compiled into charts and tables, were exhibited in Booth 41.

COMMITTEE ON DISPENSARY DEVELOPMENT OF THE UNITED HOSPITAL FUND, NEW YORK

This committee exhibited some of its findings and some results of its work in Booth 37. This is the latest and best of the studies of out-patient service.

NEW JERSEY TUBERCULOSIS LEAGUE, INC.

This exhibit attracted favorable comment at the recent Convention of American Nurses Association in Seattle. It made this phase of health work remarkably clear and striking.

NATIONAL CHILD WELFARE ASSOCIATION

The educational panels worked out by the National Child Welfare Association on the various health phases of normal childhood have attracted wide attention. These were exhibited in Booth 80.

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

Everyone was interested to see the work really done by hospital patients. The large number of hospitals desiring to exhibit their work required the assignment of eight hundred square feet of floor area for this purpose—the largest exhibit on the Pier. Booth 116.

BUREAU OF OCCUPATIONAL THERAPY, DEVEREUX MANSION, MEDICAL WORKSHOP

These three organizations presented a combined exhibit of their work for development of Occupational Therapy in Booth 108.

COMMITTEE FOR THE CARE OF THE JEWISH TUBERCULOUS

Under the name of the Altro Manufacturing Company the committee for the care of the Jewish Tuberculous of New York City operates a unique organization and plant. It is an effort to make tuberculosis patients as near self-supporting as is compatible with their physical interests. It is in a way a commercial organization, but based on philanthropic motives. The product of this plant is various articles of needle work, which includes garments for hospital use. Booth 72.

HOSPITAL JOURNALS

The following journals exhibited their publication and their work: The Modern Hospital, Booth 26; Hospital Management, Booth 94; Hospital Progress, Booth 114; The Trained Nurse and Hospital Review, Booth 90A; American Journal of Nursing, Booth 39; Hospital Social Service, Booth 54A.

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of the
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HELD AT

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AMERICAN HOSPITAL ASSOCIATION

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Daniel D. Test, Pennsylvania Hospital, Philadelphia, Pa. Term expires 1924.

Richard P. Borden, Union Hospital, Fall River, Mass. Term expires 1924.

A. C. Bachmeyer, M. D., Cincinnati General Hospital, Cincinnati, Ohio. Term expires 1925.

Rev. Maurice F. Griffin, St. Edwards Church, Youngstown, Ohio. Term expires 1925.

Miss Alice Thatcher, Christ Hospital, Cincinnati, Ohio. Term expires 1926.

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NOVEMBER 3, 1923

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of the
AMERICAN HOSPITAL ASSOCIATION
Milwaukee, Wisconsin, October 29 to November 3, 1923

OPENING GENERAL SESSION

October 29—2:30 P. M.

President Bacon in the chair:

Program

Invocation—Rev. Maurice F. Giffin, Trustee, American Hospital Association, Youngstown, Ohio.

Address of Welcome—Hon. Daniel W. Hoan, Mayor of Milwaukee.

Response—Mr. E. S. Gilmore, Superintendent Wesley Memorial Hospital, Chicago.

Address of President—Mr. Asa Bacon, Superintendent, Presbyterian Hospital, Chicago, Illinois.

Report of Trustees—Mr. Daniel D. Test, Superintendent, Pennsylvania Hospital, Philadelphia, Pa.

Report of Treasurer—Robert J. Wilson, M. D., Treasurer, Director of Hospitals, Health Department, New York City.

Report of Executive Secretary—A. R. Warner, M. D., Executive Secretary, Chicago, Illinois.

Report of Membership Committee—Rev. H. L. Fritschel, Chairman, President, Milwaukee Hospital, Milwaukee, Wis.

Third Report of Committee on Forms—A. C. Bachmeyer, M. D., Chairman, Superintendent, Cincinnati General Hospital, Cincinnati, Ohio.

Referred to the Administration Section Wednesday Afternoon for further discussion and made a special order for 2:30 P. M.

Report of Committee on Relations between Hospitals, States and Cities—Mr. John E. Ransom, Chairman, Superintendent, Michael Reese Dispensary, Chicago, Illinois.

Referred to the Administration Section—Public Health and Community Relations Session—for further discussion Thursday morning and made a special order for 9:30 A. M.

AMERICAN HOSPITAL ASSOCIATION

Second Report of Committee on Floors,—Mr. F. E. Chapman, Chairman, Director, Mount Sinai Hospital, Cleveland, Ohio.

Referred to the Construction Section Tuesday afternoon for further discussion and made a special order for 2:30 P. M.

Report of Exposition Committee on Buildings, Construction, Equipment and Maintenance—S. S. Goldwater, M. D., Chairman, Director, Mount Sinai Hospital, New York City.

Referred to the Construction Section Tuesday Afternoon for further discussion and made a special order for 3:30 P. M.

GENERAL SESSION

October 29th—8:00 P. M.

HOSPITAL STANDARDIZATION

Conducted by the American College of Surgeons, Chicago.

Albert J. Ochsner, M. D., President, in the chair:

Program

Chairman's Address

The Hospital Program of the American College of Surgeons—Franklin H. Martin, M. D., Director-General, American College of Surgeons, Chicago.

Fundamental Principles underlying the Hospital Standardization Movement—Rev. C. B. Moulinier, S. J., President, Catholic Hospital Association, Milwaukee, Wis.

Working Principles of Hospital Standardization—Malcolm T. MacEachern, M. D., Associate Director, American College of Surgeons, Hospital Standardization.

A Superintendent's Experience in Standardizing a Hospital—Mr. Robert Jolly, Superintendent, Baptist Hospital, Houston, Tex.

Discussion—Major B. E. Hedding, Tuberculosis Annex of the National Home for Disabled Volunteer Soldiers, National Home, Wisconsin.

Round Table Conference and General Discussion—Conducted by Malcolm T. MacEachern, M. D., Chicago.

Led by Mr. E. S. Gilmore, Superintendent, Wesley Memorial Hospital, Chicago, and C. S. Woods, M. D., Superintendent, St. Luke's Hospital, Cleveland, Ohio.

GENERAL SESSION

October 30th—8:00 P. M.

President Bacon in the chair:

Program

Report of Committee on Canned Fruit and Vegetables—Mr. Guy J. Clark, Chairman, Cleveland Hospital Council, Cleveland, Ohio.

Referred to the Dietetic Section Wednesday Afternoon for further discussion and made a special order for 2:30 P. M.

Second Report of Special Committee on Gauze Renovation and Standardized Dressings—A. B. Denison, M. D., Chairman, Director, Lakeside Hospital, Cleveland, Ohio.

Referred to the Administration Section Wednesday Afternoon for further discussion and made a special order for 3:00 P. M.

Report of the Intern Committee—Nathaniel W. Faxon, M. D., Chairman, Superintendent, Strong Memorial Hospital, Rochester, N. Y.

Referred to the Administration Section Thursday Morning for further discussion and made a special order for 10 A. M.

Report of the Nominating Committee—George F. Stephens, M. D., Chairman, Superintendent, Winnipeg General Hospital, Winnipeg, Manitoba.

Appointment of Tellers by the President.

Report of Committee on Foods and Equipment for Food Service—F. R. Nuzum, M. D., Director, Santa Barbara Cottage Hospital, Santa Barbara, Cal.

Referred to the Dietetic Section Wednesday Afternoon for further discussion and made a special order for 3:00 P. M.

Report of Committee on Laundry Equipment, Supplies and Linens—W. P. Morrill, M. D., Chairman, Superintendent, Shreveport Charity Hospital, Shreveport, La.

Referred to the Administration Section Wednesday Afternoon for further discussion and made a special order for 3:30 P. M.

Report of Committee on Building Codes—Mr. Chas. F. Owsley, Chairman, Cleveland, Ohio.

Report of Committee on Clinical and Scientific Equipment and Supplies—Henry Hedden, M. D., Chairman, Superintendent, Methodist Hospital, Memphis, Tenn.

Referred to the Administration Section Wednesday Evening for further discussion and made a special order for 8:00 P. M.

Special Report of Sub-committee on X-ray Departments and Work—Mr. Louis R. Curtis, Vice-President, St. Luke's Hospital, Chicago, Illinois.

Referred to the Administration Section Wednesday Evening for further discussion and made a special order for 8:15 P. M.

Report of Committee on General Furnishings and Supplies—

AMERICAN HOSPITAL ASSOCIATION

Miss Margaret Rogers, Chairman, Superintendent, Lafayette Home Hospital, Lafayette, Indiana.

Referred to the Administration Section Wednesday Evening for further discussion and made a special order for 8:30 P. M.

Report of Out-Patient Committee—Alec N. Thomson, M. D., Chairman, Medical Secretary, Committee on Dispensary Development, 15 West 43d Street, New York City.

Referred to the Out-Patient Section Tuesday Afternoon for further discussion and made a special order for 2:30 P. M.

Report of the Committee on Training School Budgets—George O'Hanlon, M. D., Chairman Superintendent, Bellevue Hospital, New York City.

Referred to the Administration Section Wednesday Evening for further discussion and made a special order for 9:30 P. M.

Report of the Special Committee on Cleaning—C. W. Munger, M. D., Chairman, Superintendent, Blodgett Memorial Hospital, Grand Rapids, Mich.

Referred to the Administration Section Wednesday Afternoon for further discussion and made a special order for 3:45 P. M.

Woman's Work in Hospitals—Mrs. Perkins B. Bass, President, Woman's Auxiliary Board, Presbyterian Hospital, Chicago, Illinois.

A motion was made and adopted to publish in pamphlet form the address of Mrs. Bass—also remarks of Mrs. Bass and Mrs. Graham.

OUT-PATIENT SECTION

October 30—9:30 A. M.

Alec N. Thomson, M. D., Chairman of the Section, in the chair:

Program

Discussion of the Report of Out-Patient Committee—Alec N. Thomson, M. D., Chairman, Medical Secretary, Committee on Dispensary Development, 15 West 43 Street, New York City.

A Pay Clinic—George Hoyt Bigelow, M. D., Director, Cornell Clinic, New York City.

Medical Relationships in a Dispensary—A. B. Denison, M. D., Superintendent, Lakeside Hospital, Cleveland, Ohio.

HOSPITAL CONSTRUCTION SECTION

October 30th—2:30 P. M.

E. S. Gilmore, Chairman of the Section, in the chair:

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Program

An illustrated Talk on Architecture—Mr. John Holabird, Architect, Chicago, Illinois.

Discussion of the Second Report of Committee on Floors—Mr. F. E. Chapman, Chairman, Director, Mount Sinai Hospital, Cleveland, Ohio.

Discussion of the Report of Exposition Committee on Buildings, Construction, Equipment and Maintenance—S. S. Goldwater, M. D., Chairman, Mount Sinai Hospital, New York City.

Discussion opened by Perry W. Severn, Architect, Chicago, Illinois.

Discussion of the report of the Committee on Building Codes—Mr. Chas. F. Owsley, Chairman, Cleveland, Ohio.

GENERAL SESSION

October 30th—8:00 P. M.

President Bacon in the chair:

Program

How to Teach the Value of Supplies and Equipment to the Hospital Personnel—Mr. Charles S. Pitcher, Superintendent, Presbyterian Hospital, Philadelphia, Pa.

Ethylene—Arno Benedict Luckhardt, M. D., Chairman, Section on Pathology and Physiology, American Medical Association, Chicago, Illinois.

Responsibilities of Hospitals Toward Public Health Activities—Herman N. Bundesen, M. D., Commissioner of Health, Chicago, Illinois.

The Hospital Library and Service Bureau—Miss Donelda R. Hamlin, Director, Hospital Library and Service Bureau, Chicago, Illinois.

Report of the Delegates to the American Conference on Hospital Service—S. S. Goldwater, M. D., Director, Mount Sinai Hospital, New York City.

A. R. Warner, M. D., Executive Secretary, American Hospital Association, Chicago, Illinois.

GENERAL SESSION

October 31st—9:30 P. M.

President Bacon in the chair:

Program

The Responsibility of the Hospital in Minor Operations—W.

AMERICAN HOSPITAL ASSOCIATION

L. Babcock, M. D., Superintendent, Grace Hospital, Detroit, Mich.
Hospital Insurance—Mr. Frank G. Watson, Chicago, Illinois.

Report of the Committee on the Education of the Hospital Executive—Dr. F. A. Washburn, Chairman, Director Massachusetts General Hospital, Boston, Mass.

Report of the Delegate to the American Conference on Hospital Service—A. R. Warner, M. D., Executive Secretary, American Hospital Association, Chicago, Illinois.

Team Work Among Hospitals—Mr. W. J. Raddatz, President, Cleveland Hospital Council, Cleveland, Ohio.

DIETETIC SECTION

October 31st—2:30

Miss Lulu G. Graves, Chairman of the Section, in the chair:

Program

Discussion of the Report of Committee on Canned Fruit and Vegetables—Mr. Guy J. Clark, Chairman, Cleveland Hospital Council, Cleveland, Ohio.

Discussion of the Report of Committee on Foods and Equipment for Food Service—F. R. Nuzum, M. D., Medical Director, Santa Barbara Cottage Hospital, Santa Barbara, Cal.

Discussion led by C. W. Munger, M. D., Director Blodgett Memorial Hospital, Grand Rapids, Mich.

A Consideration of Diets for Patients Receiving Insulin—S. Franklin Adams, M. D., Mayo Clinic, Rochester, Minn.

Adapting Diets to Individuals—Miss Bertha M. Wood, East Northfield Seminary, East Northfield, Mass.

ADMINISTRATION SECTION

October 31st—2:30 P. M.

T. K. Gruber, M. D., Chairman of the Section, in the chair:

Program

Discussion of the Third Report of the Committee on Forms—A. C. Bachmeyer, M. D., Chairman, Superintendent, Cincinnati General Hospital, Cincinnati, Ohio.

Third Report of the Committee on Forms, approved and adopted.

Discussion opened by Mr. W. D. Clark, Assistant Comptroller of the University of California.

Discussion of the Report of Special Committee on Gauze Reno-

vation and Standardized Dressings—A. B. Denison, M. D., Chairman, Director, Lakeside Hospital, Cleveland, Ohio.

Discussion by Herman Smith, M. D., Superintendent of Michael Reese Hospital, Chicago, Ill.

George A. MacIver, M. D., Assistant Director, Massachusetts General Hospital, Boston, Mass.

E. E. Dickson, Johnson & Johnson, New Brunswick, N. J.

H. R. Lane, Lewis Manufacturing Company, Walpole, Mass.

Report of Special Committee on Gauze Renovation accepted and referred to the Trustees for continuance.

Discussion of the Report of Committee on Laundry Equipment, Supplies and Linens—W. P. Morrill, M. D., Chairman, Superintendent, Shreveport Charity Hospital, Shreveport, La.

Report of the Committee on Laundry, Equipment and Supplies, accepted and adopted.

Discussion by W. G. Neally, M. D., Director Brooklyn Hospital, Brooklyn, N. Y.

Discussion of the Report of the Committee on Cleaning—C. W. Munger, M. D., Chairman, Superintendent, Blodgett Memorial Hospital, Grand Rapids, Mich.

Discussion by Warren L. Babcock, M. D., Director Grace Hospital, Detroit, Michigan.

James U. Norris, Superintendent Women's Hospital in the State of New York, New York City.

A motion was made and adopted to continue the Committee on Cleaning.

ADMINISTRATION SECTION

October 31st—7:30 P. M.

T. K. Gruber, M. D., Chairman of the Section, in the chair:

Program

Discussion of the Report of Committee on Clinical and Scientific Equipment and Supplies—Henry Hedden, M. D., Chairman, Superintendent, Methodist Hospital, Memphis, Tenn.

Discussion by E. R. Crew, M. D., Superintendent, Miami Valley Hospital, Dayton, Ohio.

W. W. Rawson, M. D., Superintendent, Thomas D. Dee Memorial Hospital, Ogden, Utah.

Report of Committee on Clinical and Scientific Equipment and Supplies, accepted and referred to the Trustees for continuance.

Discussion of the Special Report of Sub-Committee on X-ray Department Work—Mr. Louis R. Curtis, Vice-President, St. Luke's Hospital, Chicago, Illinois.

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Discussion by Mr. James R. Mays, Superintendent, Garfield Memorial Hospital, Washington, D. C.

Daniel D. Test, Superintendent, Pennsylvania Hospital, Philadelphia, Pa.

Report of Subcommittee on X-ray Department accepted and referred to the Trustees for continuance.

Discussion of Report of Committee on General Furnishings and Supplies—Miss Margaret Rogers, Chairman, Superintendent, Lafayette Home Hospital, Lafayette, Indiana.

Discussion by Walter S. Goodale, M. D., Superintendent, Buffalo City Hospital, Buffalo, N. Y.

Report of Committee on General Furnishings and Supplies, accepted and referred to the Trustees for continuance.

Discussion of the Report of the Committee on Training School Budgets—George O'Hanlon, M. D., Chairman, Superintendent, Bellevue Hospital, New York City.

Report of Committee on Training School Budgets, accepted and referred to the Trustees for continuance.

TRUSTEE SECTION

October 31st—8:00 P. M.

Alfred C. Meyer, Chairman of the Section, in the chair:

Program

Discussion of the Report of the Special Committee on Old Age Pensions—Robert J. Wilson, M. D., Director of Hospitals, Health Department, New York City.

Benefits and Disadvantages of Endowments for Hospitals—Mr. Edwin R. Embree, Secretary, Rockefeller Foundation, New York City.

Digest of Opinions of Hospital President and Directors of Community Federations, on the Handling of Endowment Funds—Mr. Alfred C. Meyer, Chairman of the Section.

Discussion of the last two papers opened by Mr. W. D. Clark, Assistant to the Comptroller, University of California, San Francisco, Cal.

NURSING SECTION

November 1st—9:30 A. M.

M. Helena McMillan, Chairman of the Section, in the chair:

Program

Why Education? The Opportunities for Service Being Offered

AMERICAN HOSPITAL ASSOCIATION

to the Graduate Nurse—Miss Edna Foley, Visiting Nurse Association, Chicago, Illinois.

Classification of Nursing Schools—Miss Carolyn E. Gray, Department of Nursing, College for Women, Western Reserve University, Cleveland, Ohio.

Hospital Group Nursing—Sister M. Paul, St. Mary's Hospital, Rochester, Minn.

Health of the Student Nurse—Carolyn Hedger, M. D., Chicago, Illinois.

ADMINISTRATION SECTION

(Public Health and Community Relations Session)

November 1st—9:30 A. M.

T. K. Gruber, M. D., Chairman of the Section, in the chair:

Program

Discussion of the Report of the Committee on Relations Between Hospitals, States and Cities—Mr. John E. Ransom, Chairman, Superintendent, Michael Reese Dispensary, Chicago, Illinois.

Discussion by J. J. Weber, Editor Modern Hospital—J. Gosse-
lin, M. D., Superintendent, Civic Hospital, Quebec, Canada.

Report of the Committee on Relations Between Hospitals, States and Cities accepted and referred to the Trustees for continuance.

Discussion of Report of the Intern Committee—Nathaniel W. Faxon, M. D., Chairman, Superintendent Strong Memorial Hospital, University of Rochester, Rochester, N. Y.

Discussion by Walter H. Conley, M. D., Medical Superintendent, Metropolitan Hospital, Welfare Island, N. Y.

D. M. Morrill, M. D., Assistant Superintendent, University of Ann Arbor, Mich.

Report of Committee on Intern Service, accepted and referred to Trustees for continuance.

Round Table.

SOCIAL SERVICE SECTION

November 1st—2:30 P. M.

Talitha Gerlach, Chairman of the Section, in the chair:

Program

Practical Social Service—Mrs. Gertrude Howe Britton, Superintendent, General Free Dispensary, Chicago, Illinois.

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The History and Development of Hospital Social Service—Miss M. Antoinette Cannon, President, American Association of Hospital Social Workers, New York, N. Y.

The Development of Psychiatric Social Service—Miss June Frances Lyday, Chief of Social Service, Psychopathic Hospital, University of Iowa, Iowa City, Ia.

SMALL HOSPITAL SECTION

November 1st—2:30 P. M.

Bertha W. Allen, Chairman of the Section, in the chair:

Program

Needs of the Small Hospital—Miss Mary Gladwin, Nurses' Board, Old State Capitol, St. Paul, Minn.

Discussion—Miss Mary E. Surbray, Warren, Ohio.

Community Work for Small Hospitals—Miss Mary A. Baker, Supt., Henry W. Putnam Hospital, Bennington, Vermont.

Discussion—Miss Amy Beers, Superintendent, Jefferson County Hospital, Fairfield, Iowa.

What Constitutes Good Service to the Patient—Miss Minnie Goodnow, R. N., Superintendent, Children's Hospital, Washington, D. C.

Discussion—Miss Marietta D. Barnaby, Superintendent, Henry Heywood Memorial Hospital, Gardner, Mass.

Visiting Hospitals in Europe—Miss Margaret Cumming, Superintendent, The Christian H. Buhl Hospital, Sharon, Pa.

Round Table.

GENERAL SESSION

November 1st—7:30 P. M.

President Bacon in the chair:

Program

Religion in the Hospital—Rev. Wilson E. Donaldson, Chaplain, Cook County Hospital, Chicago, Illinois.

Discussion by E. N. Ware.

The Children's Department of the Hospital—H. M. Helmholtz, M. D., Rochester, Minn.

What the Hospital Can Do for the Prevention and Relief of Heart Disease—James B. Herrick, M. D., President, Chicago As-

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sociation for the Prevention and Relief of Heart Disease, Chicago, Illinois.

Care of Tuberculous Patients in General Hospitals—Myron W. Snell, M. D., Supervisor, Tuberculosis Sanitarium, Soldiers' Home, Milwaukee, Wis.

Discussion opened by—Major B. E. Hedding, Chief of Tuberculosis Service, National Home for Disabled Volunteer Soldiers, National Home, Milwaukee, Wis.

Hospital Dentistry—Frederick B. Morehead, M. D., D. D. S., Dean, Dental Department, Illinois University, Chicago, Illinois.

GENERAL SESSION

November 2d—9:30 A. M.

Program

The Heart of the Hospital—Sister Rose Alexius, Superintendent, Good Samaritan Hospital, Cincinnati, Ohio.

The Intern Problem from the Standpoint of Medical Education—N. P. Colwell, M. D., Secretary, Council on Medical Education and Hospitals, American Medical Association, Chicago, Illinois.

Nitrous Oxide Gas in Obstetrics—C. Henry Davis, M. D., Milwaukee, Wis.

Should General Hospitals Establish Departments of Physiotherapy?—J. H. Kellogg, M. D., Superintendent, Battle Creek Sanitarium, Battle Creek, Mich.

GENERAL SESSION AND BUSINESS MEETING

November 2d—2:30 P. M.

President Bacon in the chair:

Program

Report of Election Results—By the Tellers.

Report of Committee on Resolutions—Mr. Richard P. Borden, Chairman, Trustee, Union Hospital, Fall River, Mass.

A resolution was presented and approved expressing endorsement of the American Hospital Association of Hospital Day.

A resolution was presented and approved expressing the attitude of the American Hospital Association in the matter of the classification of nursing personnel by the United States Government.

Report of the Committee on Constitution and Rules—Mr.

AMERICAN HOSPITAL ASSOCIATION

Richard P. Borden, Chairman, Trustee, Union Hospital, Fall River, Mass.

Report of the Special Committee to Draft Resolutions—E. T. Olsen, M. D., Chairman, Superintendent, Englewood Hospital, Chicago, Illinois.

The new President takes the Chair.

Announcement of Committee Appointments.

A motion was made and adopted to express the appreciation of the Association to Doctor Fritschel and the Local Committee for their fine work and entertainment.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin,

October 29, 1923, 2:30 p. m., President Bacon

in the chair

OPENING GENERAL SESSION

PRESIDENT BACON: I take pleasure in calling to order the twenty-fifth annual conference of the American Hospital Association.

Invocation by Rev. M. F. Griffin, Youngstown, Ohio:

Almighty and eternal God, to know Whom is to live and to serve Whom is to reign, we raise our minds and our hearts to Thee as we assemble for this convention. From far and near we come, representing widely separated environments and still more distinct influences and traditions, to meet on the common ground of service to suffering humanity. This lofty purpose of our life effort leads us to take counsel of one another, that, stimulated by mutual assistance, we may return to our respective spheres of endeavor for more effective hospital service. Hospital service, what an inspiration, what wondrous possibilities for good, what far reaching results for time and eternity! Hospital service—that extends through all the seven ages of man, that brings him into the world, and cares for him during all his years, that waits at his bedside to close the book of life, for as it wrote its foreword, so too its stylus traces “finis.” Hospital service circles humanity’s wrist with finger on its pulse, and each heartbeat of mankind must find therein the answering throb of its own. Oh Thou who art the alpha and the omega of our existence, guide us and guard in our manifold ministrations. Oh Thou who art the infinite source of light, illumine our pathway. Thou who art eternal truth, breathe the spirit of wisdom into our deliberations. Oh enduring love, teach us a reciprocal love for the humblest of Thy unfortunate children. Oh Father of mercies and God of all consolation, enkindle in us the fire of Thy divine love. In flame our hearts with a desire to serve Thee. Enkindle in them a greater, a renewed zeal for the cause we have espoused that we may return from this convention inspired to carry on our work to the end; for Thine is the power and the glory. Amen.

ADDRESS OF WELCOME

By Dr. George C. Ruhland, Health Commissioner,
Milwaukee, Wisconsin

Mr. Chairman and members of the Hospital Association: The best of plans, as we know, at times miscarry. The plans that were prepared for your convention included an official welcome by his Excellency the Governor; they also included an official welcome to you by his Honor the Mayor. Unfortunately these plans miscarried. Neither of these gentlemen found it possible, at the last moment, to do themselves the honor of welcoming you to the state and the city. In that emergency, evidently someone thought of "Call a doctor," and so they turned to the Health Commissioner of this city and asked that he undertake this responsibility, and so I am here to bid you welcome to Milwaukee. Let me say that I appreciate this both as an honor and a privilege. Let me say that I consider this more than an honor and a privilege—that I also consider this an opportunity. I believe this will emphasize the point and make it clear that I speak sincerely when I say that I am glad you are here. Let me illustrate and give the reason why I consider this an opportunity. I am mindful that this organization represented here today has brought together the brightest thought in both this country and Canada on hospital construction and management. I feel that it is singularly fortunate for us that you have selected Milwaukee as your place of meeting. Why? For the reason that we, here in Milwaukee, have a hospital problem and those of us who call Milwaukee our home will, therefore, seize upon this opportunity to lay our troubles before you. We believe, particularly those of us who are in public health administration, that the modern hospital is a most important adjunct to public health conservation. Now, Milwaukee is a city that has a fairly good reputation so far as the health of the citizens is concerned. By comparison we rank quite well with other cities. However, notwithstanding this fact and the fact that we have hospitals here, we feel that we are not protected in the way of hospital service as we should be. We are distinctly under-hospitalized. We realize when we say that we are under-hospitalized, that the hospital is the best place where those who are sick can get well; you will say more—it is the best place for those who want to avoid getting sick to go and have a periodic physical stock taking. We know that in our community there is a great deal of sickness; perhaps 50,000 persons are daily on the sick list, not all critically ill, but people who ought to have advice and should have their conditions looked into. We also realize that

it is essential that we should make hospital and dispensary service available at such prices that even the poor can, without feeling they are pauperized, have the benefit of hospitalization. These are some of the problems that confront us here and I have spoken of them only because I want to lend emphasis to the statement that we are glad you have come here. I trust your deliberations will prove fruitful and your stay agreeable, as I am sure both will to us. I am sincerely glad you have come and extend to you officially as well as personally a most hearty welcome.

MR. E. S. GILMORE: On behalf of the Hospital Association I wish to thank you for the extreme cordiality of your greeting. It would, of course, have been a great pleasure to us to have had the Mayor with us, but we realize that he must be a busy man and so we are congratulating ourselves and we wish to commend him upon the excellence and wisdom of his choice of a representative.

PRESIDENT BACON: We have with us today a representative from the Philippine Islands, Dr. Mariano Tolentino. I will ask the Doctor to say a few words if he will.

DR. MARIANO TOLENTINO: Ladies and gentlemen: I am not sure whether you can understand my English. I really cannot express myself at this moment, and so all I can say is that I greatly appreciate this privilege that has been extended to me by President Bacon and the directors of this Association to attend this annual meeting of the American Hospital Association. I consider it a very great privilege indeed to be able to be among you, because we have heard much of you and we know that you are the leaders of the best hospitals in the world. I am sure that I shall learn a great deal from you here in this convention, not only because many important papers on hospital administration are going to be read, but also because of the beautiful exhibitions that are going to be presented in connection with it. As you know, I have come from the Philippine Islands, 10,000 miles away, but I am glad to say that in spite of the fact that we are far away from you, our hospitals are trying their best to follow your methods and your examples and also to meet the requirements of your Association, particularly in regard to the minimum standard laid down by the American College of Surgeons and approved by the American Hospital Association and the American Medical Association. I do not know, but perhaps you will be interested to know that in the Philippine Islands at present there are about 80 hospitals of all classes, of which 47 or 48 are general hospitals. Twenty-five of these general hospitals have been established by the Philippine government; sixteen belong to different Protestant missions and four to the Catholic organizations. Now, ladies and

gentlemen, I am sure that with your help these hospitals will be able to hold their own. I am not here as the official delegate of these hospitals—I am here only as a guest—but I believe I am voicing the unanimous opinion of the hospitals in the Philippines when I say that all of them, without any exception, look toward you for guidance and help in their work, and that they hope that in the future they will be able to qualify themselves as members of this Association and thus be entitled to all the rights and privileges of the members of this Association. Thank you.

PRESIDENT BACON: I am sure we are all grateful to the Doctor for bringing a message to us from the Philippines. We have with us Dr. A. W. Dunbar, of the U. S. Navy Bureau of Medicine and Surgery, and I will ask the Doctor to say just a word.

DR. A. W. DUNBAR: Thank you, Mr. President, for this opportunity to express my pleasure at not only being a fellow member of the Hospital Association, but also to have the opportunity to express the congratulations of the Surgeon General upon the very rapid growth of this organization. I think it was twelve years ago that I first attended one of these meetings at St. Louis, and certainly I can see a tremendous increase. In the Navy we have 23 hospitals, varying from 50 to 1,000 beds, and you can imagine that the Surgeon General reads with a great deal of interest the various papers and the discussions that occur at these meetings. I do not wish to occupy your valuable time, which I know will be taken up with much more interesting material than listening to anything about the naval hospitals, but I shall be pleased at any time to talk to any of you who may be interested in that line, and I personally shall enjoy my time spent with you. Thank you very much.

PRESIDENT BACON: One of the most important parts of our conference is the exhibition. We have, this year, probably the greatest hospital exposition ever held in this country. The exhibitors have a committee at work in conjunction with the trustees of the American Hospital Association, and the chairman of that committee, Mr. B. F. Watson, is on the platform and I wish you to know who Mr. Watson is. I will ask him to say a few words to us.

MR. WATSON: Mr. President and members of the American Hospital Association: I wish that I were a silver tongued orator, that I could stand before you this afternoon and with an oratorical command of words enthuse over our part of the program connected with this meeting, but I am only a merchant, one of the exhibitors.

I am going to ask you to abide with me but a moment while I extend to President Bacon, Dr. Warner and the Trustees the gratitude of the exhibitors for their cooperation in assisting us in putting on this exposition. Through a suggestion of Mr. Bacon's, we have put on one or two educational features this year. Through the patience and cooperation of Dr. Warner, we have overcome many complaints and objections that the exhibitors have brought in, and I am sure that we feel deeply an appreciation of Dr. Warner's and Mr. Bacon's efforts to cooperate with us.

But there is a further cooperation we ask, and that is between the delegates of the Association and the exhibitors, and not merely just between the officers of each Association. We can cooperate with you by putting on larger and better exhibits, and you can cooperate with us by attending in large numbers the American Hospital Association convention. We enjoy, wish and welcome the superintendent, but we want the president of the hospital, we want the trustees and the building committee to come to us. We can cooperate with you through the manner and mode of conduct of our exhibitors. You can cooperate with us by suggesting, complaining and offering criticisms on our exposition.

There are three ways in which you may give us those suggestions, offer your complaints and your criticisms; first, through the executives of the American Hospital Association; secondly, through the Executive Committee of the Exhibitors' Association; and thirdly through the hospital publications that reach you.

We all know that a great many hospitals are not properly equipped, they are under-equipped. We all know that you have problems that you wish to have worked out by mechanical devices; we have master mechanics working for us; we have people trying to solve those problems, and if you would put those suggestions before the executives of your Association and before our Association and in your publications, we would be glad to build equipment and get out merchandise that will meet with the approval and needs of this splendid work the hospitals are carrying on. I wish to say that this is an exposition and not a trading post. I believe that I am speaking for every exhibitor when I say you are cordially invited to attend every booth and attend it knowing that you will not be pestered for an order, though we gladly accept orders willingly given. In conclusion I speak for the exhibitors in extending to you a welcome to our exhibit and in offering you our service. Thank you.

THE PRESIDENT'S ADDRESS

Mr. Asa S. Bacon, Superintendent, Presbyterian Hospital
Chicago, Illinois

To the Members of The American Hospital Association, Exhibitors
and Guests:

Today marks the twenty-fifth anniversary of the American Hospital Association. As we look back over this stretch of a quarter of a century, it seems a long time—a long time since the first meeting in 1899. Our Association has grown from an organization of a few hospital superintendents to a powerful organization embodying all hospital activities; therefore it is most appropriate that this twenty-fifth convention be given the distinction of "The American Hospital Conference" rather than that of an association meeting; and it is likewise fitting to travel again the road over which we have come, to review the work of these many years, filled, as we know, with notable and worthy achievements.

Thus it was decided that your President should give a history of the Association, rather than the regulation address.

On September 12, 1899, in the Colonial Hotel, Cleveland, O., four local hospital superintendents, together with two from Detroit, one each from Ann Arbor and Pittsburgh, gathered at the request of James S. Knowles, superintendent, Lakeside Hospital, Cleveland, to form an association. The American Hospital Conference, begun by those eight pioneers, attracted last year over 3,000 visitors during its week's program. From eight to 3,000, a growth of 37,000 per cent, is a mighty development, yet in a graphic way it expresses the development of hospital service in the United States and Canada, a development for which these eight pioneers and the American Hospital Association deserve a major portion of credit. Every year since 1899 that group of hospital administrators, which later became the American Hospital Association, has met, and now in 1923 the Silver Jubilee Anniversary of the first meeting of the pioneers is observed. Surely, the expectations of Mr. Knowles, who, according to the minutes of the first meeting, said he "hoped to see a permanent organization, one that would meet in the various cities to inspect hospitals, to make inquiries and to look into and to discuss problems of management and operation," were magnificently fulfilled!

One of the most interesting acts at the first meeting was a motion suggested by Mr. Clark, superintendent of the University Hospital, Ann Arbor, "that membership be open to managers, i. e., those in charge of hospitals, irrespective of title and sex."

The business at this first meeting consisted of an appointment of a committee on organization and membership composed of S. W. Richardson, U. S. Marine Hospital Service, Cleveland; C. S. Howell, Western Pennsylvania Hospital, Pittsburgh, and A. T. Putnam, Grace Hospital, Detroit, and the committee on constitution, including A. W. Shaw, Harper Hospital, Detroit; W. H. Webber, Homeopathic Hospital, Cleveland, and H. W. Clark, University Hospital, Ann Arbor. It is interesting to note that after a very thorough discussion no action was taken on a motion to incorporate the Association under the laws of one of the states.

The first election of the association resulted in the following choices: Mr. Knowles, Chairman; Mr. Clark, Vice-chairman; Mr. Howell, Secretary; Mr. Shaw, Treasurer; Executive Committee, Mr. Richardson, Mr. Howell and Mr. Clark; Membership Committee, Mr. Putnam, Mr. Webber and J. C. Reiber, City Hospital, Cleveland. Incidentally, there were just enough members present to take care of these offices. One of the most interesting features of the first meeting was the presence of Del T. Sutton, publisher of the "*National Hospital Record*," who probably was responsible for the call of the meeting, and who was made an honorary member and whose paper was made the official organ of the association.

On the second day the members organized an informal banquet, just such an affair as will conclude the Silver Jubilee Convention. The members whose names have been listed composed the total attendance at the first session, all of whom were made charter members. A study of the first constitution reveals the fact that the Association was called "The Association of Hospital Superintendents," and its object was the meeting "of those in immediate charge of hospitals" for the interchange of ideas, discussion of hospital economics, inspection of hospitals, suggestions of better plans of operation. Membership originally was restricted to executive officers of regularly organized hospitals. The original constitution provided for annual meetings to be held the third Tuesday of August, in accordance with which that date and Pittsburgh were selected as the time and place of the 1900 meeting.

There were twenty-two members present at this second convention and the idea of such an association had so wide an appeal that besides the institutions represented at the first meeting, hospitals from Philadelphia, New York, Brooklyn, Buffalo, Newark, Elizabeth, N. J., Atlantic City, Harrisburg, Lancaster, Rochester and Warren, Pa., had representatives present. The first nurse superintendents enrolled in the records of the Association were Mrs. Lily W. Thurman, Harrisburg Hospital, Harrisburg; Miss Dorothea Skriver, General Hospital, Lancaster; Miss Josephine Royan, Fitch

Hospital, Buffalo; Miss Eva Allerton, Homeopathic Hospital, Rochester, and Miss H. Weishert, Warren Emergency Hospital, Warren. Another interesting fact in connection with the second meeting was the presence of Daniel D. Test, superintendent of Pennsylvania Hospital, and E. S. Gilmore,* University Hospital, Ann Arbor, Michigan, who since that time have taken an active interest and a leading part in the development of the association. "An abundance of letters of inquiry and comment were evidence of the correspondence that has been carried on by the chairman and secretary," says the secretary's report at this convention.

The first "heated discussion" came at this session when Harry W. Clark, superintendent of University Hospital, Ann Arbor, attempted to resign by mail. Mr. Test and Mr. Gilmore were among those who participated, and as a result of the argument the secretary was directed to prepare a resolution to the effect that "once a member always a member."

New York and Philadelphia, the latter backed by Mr. Test, strove for the honor of the third convention. New York won. The first annual report of the treasurer showed a membership of twenty-one superintendents and \$105 receipts. The disbursements were \$32.09. The first paper presented was "Three Years of Progress in the Hospital Field," by Mr. Sutton, and this was followed by a description of the method of purchases by contract, and prices, by Dr. J. T. Duryea, Kings County Hospital, Brooklyn. Dr. E. J. Gilray, Erie County Hospital, Buffalo, also discussed this subject. The evening was spent on a Monongahela River packet.

The first business of the second day's meeting was the resolution presented by request by the secretary that retirement from the superintendency shall not involve retirement from membership in the Association. The afternoon of the second day was spent in visits to the Carnegie Steel Works at Homestead and the Westinghouse Electric Plant at East Pittsburgh. There was a banquet in the evening. The following are some of the subjects of the talks, indicating the degree of good fellowship which prevailed: "Tammany a Constitutional Monarchy," "A Hospital Absolution and Senator Mark Hanna, President," "An Infant Superintendent," "Tammany Hospitals," "A Similia Similibus Curantur Hospital," "L and 1000," "The Kindergarten Hospital (and incidentally Mr. Knowles)," "The Evolution of the Hospital (and incidentally Col. Beach)," "The Political Hospital," "The Quaker Hospital," and "A Hospital Politician." At this banquet Miss Royan and Mrs. Thurman were among the nurse superintendents who spoke.

*The records show that Mr. Gilmore became a member in 1903.

Two familiar topics were introduced at the third day's session, one "Hospital Diets, Their Preparation and Distribution," and the other "Methods of Collecting Hospital Bills." The problem of "hospital emigrants" who go from institution to institution also was considered and the first official photograph of the hospital convention was taken.

Miss M. Helena McMillan, B. A., Superintendent of Nurses, Lakeside Hospital, Cleveland, read a paper on "The Relationship Which Should Exist Between the Superintendent of a Hospital and the Superintendent of Nurses." It is most interesting to note that Miss McMillan is chairman of the section on Nursing at the Silver Jubilee Convention.

The visitors inspected the West Pennsylvania Hospital at the conclusion of the meeting.

The third meeting, at the Murray Hill Hotel, New York, September 10-12, 1901, was welcomed by the Honorable Randolph Guggenheimer, president of the Municipal Council. The minutes of this meeting contained a reference to the fining of the secretary \$200 for tardiness, the fine being suspended after profuse apologies and explanations. This section of the minutes, however, had been deleted. The first Canadian hospital representative to attend an Association meeting was Dr. Charles O'Reilly, superintendent, Toronto General Hospital.

In the evening a large number of visitors were guests at the Hammerstein Roof Garden. At this meeting Mr. Test was successful in inducing the Association to meet in Philadelphia. A trolley ride to Coney Island and a banquet were other entertainment features. The minutes say, "After a ride of about one and one-half hours through Brooklyn, about one hour was spent at the Island in all sorts of indulgences from looping the loop to the pony races." A short business meeting occupied the next morning, following which there was a trip to the factory of Johnson & Johnson at New Brunswick, N. J., in a special car. "From all that could be learned, those who attended had a 'hot time'." The outstanding feature of this meeting was a paper by Dr. Fisher entitled "The Superintendent Himself."

The registration at this meeting was forty-five, including Reuben O'Brien, Paterson General Hospital; Mr. George P. Ludlam, superintendent New York City Hospital, and Dr. C. Irving Fisher, Presbyterian Hospital, New York. The Alliance, the Cincinnati and the Reading Hospitals, and the Rhode Island Hospital, represented by Dr. John M. Peters, were among the new hospitals.

Mayor Ashbridge welcomed the fourth annual conference of the "Association of Hospital Superintendents of the United States

and Canada," as the organization now was known, at Philadelphia October 14-16, 1902. The minutes say that 100 delegates and guests were present, all of whom were entertained at a theater party and who were given privileges and courtesies of the Union League and Art Clubs.

The general program at these meetings seems to have been short, with impromptu discussions followed by an entertainment feature. On the second afternoon the delegates were given a tally-ho ride through Fairmount Park and in the evening the annual banquet took place at the Hotel Walton. The talks at this banquet included "Public Hospitals," "The Ladies," "The Hospital Superintendent as Seen by the Visiting Physician," "The Superintendent's Finish." The Honorable John Fehrenbach, Cincinnati Hospital, who was elected President, invited the Association to Cincinnati for the following meeting, and this invitation was unanimously accepted.

The treasurer's report showed a balance of \$264.02 on hand, the total receipts since the organization of the Association being \$640 and total expenditures \$375.98. Hospital records and reports took up the remainder of the morning session—this being a general discussion—as a result of which the President was authorized to appoint a committee of five to take up the matter of a uniform system of hospital accounts for the United States and Canada. Dispensary service was generally discussed at the afternoon session, one of the papers being read by Dr. Peters on "The Results of Six Years in Checking Dispensary Abuse in the Rhode Island Hospital." At this session a motion was passed not to hold an evening meeting, and the subject of hospital construction was taken up with papers by C. S. Howell, chairman of the committee on construction, Dr. Frank E. Baker and Mrs. M. H. Lawrence. Following the appointment of committees the convention adjourned and the minutes say that about twenty spent the following day at Atlantic City.

The fifth annual conference at Cincinnati, October 20-22, 1903, was attended by fifty-nine delegates, among whom were Reuben O'Brien, E. S. Gilmore, Louis R. Curtis and Daniel D. Test, all of whom are still active. The governor of Ohio and vice-mayor of Cincinnati welcomed the visitors, who also were welcomed by Dr. Christian R. Holmes on behalf of the board of Cincinnati Hospital.

"After announcing the entertainments for the afternoon and evening," as the minutes say, "Miss Royan was called on for a paper on 'Hospital Housekeeping,' followed by 'The Linen and Store Rooms' by Miss M. W. McKechnie and 'The Cleaning of Hospitals' by Miss Maud Banfield." The delegates were entertained by a theater party in the evening. The second morning session adopted an amendment to the constitution to provide for three vice-

presidents instead of one. Dr. A. B. Ancker, chairman of the construction committee, took the chair during a discussion of modern hospital architecture, one of the other papers being "The Pavilion Hospital," by Dr. Henry M. Hurd. Wednesday afternoon the delegates were entertained by a trolley ride, and in the evening were given "a sumptuous and delightful banquet at the Zoological Garden Club House." The morning session of Thursday resumed the discussion of hospital architecture and presented the nominations for officers which was headed by Daniel D. Test as President. The conference then considered the subject, "How to Reduce the Annual Deficit." Food service, dispensaries and hospital accounting were discussed and a motion was carried authorizing the chair to appoint a committee of three on uniform hospital accounts.

The sixth annual conference was held at Atlantic City, September 21-23, 1904, at Hotel Rudolf, with sixty-one registered. Among the familiar names were those of Mr. Test, Mr. O'Brien, H. E. Webster, Royal Victoria Hospital, Montreal; Dr. Peters, Dr. S. S. Goldwater, Mt. Sinai Hospital, New York, and Del T. Sutton. It is interesting to note that another familiar topic was introduced at this session. Dr. J. C. Biddle, State Hospital, Ashland, Pa., read a paper on "The Physician as a Hospital Superintendent," and Mr. C. S. Howell, Western Pennsylvania Hospital, Pittsburgh, read a paper on "The Layman as a Hospital Superintendent." Another paper was by Dr. H. B. Howard, Massachusetts General Hospital, Boston, on "The Purchase of Hospital Supplies." "Mental Wards in General Hospitals" and "Private Patients in General Hospitals" were other subjects discussed at this convention, and there was a paper on "Heating and Ventilating of Hospitals," by Prof. Woodbridge, Institute of Technology, Boston, this subject also being discussed by George I. Rockwood and Charles B. Darrick, civil engineers. The familiar "question box" first comes into the minutes of the Association at this meeting. Dr. George H. M. Rowe was chairman. Here are some of the questions:

"Are Nurses Worked too Hard, and What Shall She Do to Avoid It?"

"Should Not Hospitals Have a Rule Refusing all Cases Unless They Are Vaccinated, or Willing to Be?"

"Is the Tendency to Crowd Theoretical Training of Nursing to the Disadvantage of Practical Nursing?"

"What is the Best Method of Preparing and Serving Midnight Lunch to the Nurses in a Large General Hospital?"

"Is a Hospital Liable for Burns Caused by Using Hot Water Jugs?"

"What Are the Best Floors for Operating Rooms, Wards and Kitchens?"

"Are Not Training, Board, Uniform and Diploma for Nurses Sufficient to Be An Offset Against Their Wages?"

"How Can We Avoid Waste in Hospital Supplies, Especially in the Surgical Department?"

The Association was getting popular now, and invitations were received from Denver, Detroit, Niagara Falls, Boston and Toronto—the Association deciding to go to Boston. The Polyclinic Hospital invited the visitors to a reception and tea and the other hospitals cordially welcomed the superintendents to visit them after the convention. The chairman of the committee on hospital accounts and bookkeeping presented a verbal report at this convention. The revised constitution as adopted in September, 1904, changed the name of the Association to "The Association of Hospital Superintendents," and provided for active membership for those "who at the time of their election are executive heads of the hospital without reference to sex, title or denomination." Honorary membership also was provided. The membership as of September, 1904, showed 132 active members. This was the first published list of membership and the names included Mr. Curtis, Mr. Gilmore, Dr. Goldwater, Dr. Hurd, Mr. O'Brien, Dr. Peters, Dr. R. R. Ross, Mr. Test, Dr. F. A. Washburn, Dr. J. O. Skinner, Mr. Webster and Dr. Thomas Howell, who are still active in the association, as well as Dr. Thomas Hall, Worcester City Hospital, Worcester, Mass.

There were seventy-seven members registered at the seventh annual meeting at Boston, September 26-29, 1905. A feature of this meeting was a paper by Sir Henry C. Burdett of London on "The Hospital World." Another paper was on "The Standardization of Hospital Construction and Equipment," and on "Medical Libraries in Hospitals." Other familiar topics at this convention were "Multiple Storied Buildings for Hospitals in Cities" by Dr. A. J. Ochsner, "Artificial Refrigeration" by Dr. Ross, "The Destruction of Refuse and Disinfection" and "Some Methods of Utilizing Hospital Waste," by Dr. Washburn, and "Engine Room Economics." Dr. C. Irving Fisher read a paper on "Uniformity in Hospital Financial Reports and Statistics."

The report of the membership committee showed that eighty-four applications had been approved. A suggestion was made that the membership committee include a representative of every state, and called attention to the fact that the committee had some difficulty in determining the eligibility of some institutions and suggested that a definition of eligible hospitals should be made. A motion to admit an assistant in a hospital as a member was ruled

out of order. The question box at this meeting included the following:

"Should Visitors be Admitted to Wards in the Evening?"

"What are the Best Floors for Operating Rooms, Wards and Kitchens?"

"What is the Best Method of Handling Laundry to Diminish Waste and Loss of Materials?"

"At How Young an Age Should Women be Admitted to the Training School? Is the System of Paying Satisfactory? Is It Difficult to Secure a Sufficient Number of Applications?"

At this meeting Sir Henry Burdett made an address on "The British National Nurses' Pension Fund." Dr. Howard moved that the committee on uniformity in hospital financial reports and statistics be continued and given power to confer with some firm of public accountants.

Among the familiar names listed on the roster of the association in 1906 were Miss Charlotte A. Aikens, Columbia Hospital, Pittsburgh; Miss R. Inde Albaugh, Grace Hospital, New Haven; Dr. Babcock, Grace Hospital, Detroit; Dr. J. W. Coon, Milwaukee County Hospital; Miss Minnie Goodnow, Woman's Hospital, Denver; T. H. Heard, Victoria Hospital, London, and Miss Mary L. Keith, Rochester City Hospital.

The eighth annual conference at Buffalo, September 18-21, 1906, had a registration of eighty-five. Among the registrants was Asa S. Bacon, Presbyterian Hospital, Chicago; W. W. Kenney, Victoria General Hospital, Halifax, N. S., and representatives of the Latter Day Saints Hospital, Salt Lake City; Montreal General Hospital, Touro Hospital, New Orleans; Toledo Hospital, Kessler Hospital, Huntington, W. Va.; Jewish Hospital, St. Louis. At this convention provision was made for associate membership, open to "such other persons occupying administrative positions in hospitals as are interested in the objects of this Association and have been duly elected." A paper on "The Development of a Wider National Association" was read by Miss Aikens. This convention also passed a motion made by Dr. Rowe that "the name of this Association shall be changed to the 'American Hospital Association'." Dr. Goldwater, chairman of a special committee, made a report on the development of the Association which included suggestions for committees of one on hospital construction, on hospital efficiency, finance and economies, on medical organization and medical education, and on training of nurses. A paper on "The Appointment of Internes" was read. It was at this meeting that the first commercial exhibit was made, under the supervision of Mr. Sutton.

The ninth annual conference of "The American Hospital Asso-

ciation of the United States and Canada," as it now was known, was held at Chicago, September 17-20, 1907. The total registration was 146 and was generally representative of the hospitals of the United States and Canada. Miss Jane Addams of Hull House, Chicago, read a paper on "The Layman's View of Hospital Work Among the Poor." Another paper was by Miss L. M. Coleman on "Relative Authority of the Superintendent and the Staff in the Control and Discipline of Patients." Rev. M. Wahlstrom, Augustana Hospital, Chicago, discussed "Breakage and Loss, and the Extent to Which Employees Should Be Held Responsible." There also was a paper on "An Experience With Floors," and a paper on "A Comparison of Hospital Pay Rolls, Employees and Their Selection and Management," by Mr. Bacon. Mr. Gilmore read a paper on the "Organization of a Teaching Hospital." Waste and dispensaries again were discussed.

The American Hospital Association first visited Canada at its tenth annual conference, September 29-October 2, 1908, which was held in Toronto. By this time the program of the Association had developed to such an extent that the standing committees included executive, membership, constitution and by-laws, auditing, nominating and committee on development of the Association. There also was a committee on hospital progress, with sub-chairmen, with subdivisions on hospital efficiency, construction, medical organization, out-patient work, uniform accounting, and training of nurses.

The registration at this convention was about 100, and among the new names which were noted and which became more familiar at subsequent conventions were Dr. Robert J. Wilson, Department of Health, New York City; Miss Harriett S. Hartry, St. Barnabas Hospital, Minneapolis; Dr. W. H. Smith, Hartford Hospital. Training schools were discussed at the first session, one of the papers being by Miss Aikens on "The Relation of the Training School to Hospital Efficiency." This convention also was featured by the appearance of the small hospital on the program, a paper on "Problems in the Management of Small Hospitals" being read. The convention passed a motion appropriating a sum not to exceed \$500 for the committee on nurse training. Our old friend, "Hospital Accounting," also was the subject of a paper at this convention.

One session was given over to dispensaries, the papers being "Field Work in Connection with Children's Dispensaries," and "Co-operation in Dispensary Work as Exemplified by the Association of Tuberculosis Clinics of New York." Dr. Peters read a paper on "The Development of the Work and the Restriction of the Abuse of the Out-Patient Department." Dr. Wilson read a paper on "Infectious Diseases in General Hospitals."

The eleventh annual convention was held at Washington, September 21-24, 1909, with 145 members and friends registered. New faces at this convention which subsequently became more familiar to the field were Miss Margaret Rogers, Jewish Hospital, St. Louis; Miss Adah H. Patterson, St. Luke's Hospital, St. Paul; Dr. R. B. Seem, Walker Memorial Hospital, Washington; Dr. Joseph B. Howland, Massachusetts General Hospital; Dr. C. D. Wilkins, Wilkes-Barre City Hospital; Richard P. Borden, Union Hospital, Fall River, Mass.; Dr. W. P. Morrill, Sydenham Hospital, Baltimore; Miss Adelaide M. Lewis, Ravenswood Hospital, Chicago; Miss Emelia Dahlgren, Englewood Hospital, Chicago, Ill. Rear Admiral Presley M. Rivey, Surgeon General, U. S. Navy, welcomed the visitors. The patient's point of view entered into the program at this convention with a paper by Dr. W. Gilman Thompson of New York on "Hospitals from the Patient's Point of View." Mr. Sutton, of the *International Hospital Record*, also read a paper on "Hospitals and the Public." Another familiar subject that came up at this session was "The Hospital and the Patient of Moderate Means," which was discussed by Dr. Frederick Brush, superintendent New York Post-Graduate Medical School and Hospital. Another paper was, "A Cost System for Hospitals," by Dr. Thomas Howell, New York Hospital. The scope of the Association was extended through the appointment of a committee on legislation.

St. Louis was the scene of the twelfth convention, September 20-23, 1910. At this convention first note of exhibits was made in the minutes, President Howard calling attention to a non-commercial exhibit which was arranged by Miss Aikens. Fund raising came to the official attention of the Association at this meeting, in a paper by Miss Lucia L. Jaquith on "Methods of Raising Funds for a General Hospital." The small hospital again came in for attention in a paper by Dr. Winford H. Smith on "Preparation and Use of Detailed Reports for Smaller Hospitals." Another paper was by Dr. Charles Young on the "Need of an Intermediate Single Room Service in a General Hospital." At this convention the first round table for superintendents of small hospitals was held and the following subjects were discussed:

"The desirability of having both regular and homeopathic physicians on staffs of hospitals in smaller cities."

"How best to arrange for open-air treatment in smaller hospitals."

"Can a small hospital be self-supporting?"

"How to avoid loss by the non-payment of bills."

"Is it possible to arrange a satisfactory system for a department

of electrotherapy and for X-ray work without a paid assistant in charge?"

"What paid workers and how many are necessary in a hospital of sixty beds?"

"Should a small hospital attempt to keep clinical histories beyond the ordinary nursing records? How is it best to manage this work where no intern is employed?"

"How can the supply of competent housekeepers be increased?"

The training of hospital administrators first came to the notice of the Association at this meeting, a paper on this subject being prepared by Dr. Washburn and Dr. Howland, and I wish to call your attention to the fact that Dr. Washburn now heads the Committee on the Education of Hospital Executives. Dr. Hurd also presented a paper on "The Relationship of Trustees to the Superintendent." The membership committee in its report said that 140 applications had been received during the year. The membership committee's report showed that it cost \$4.00 each to obtain members, as more than 5,000 hospitals were circularized. Of the 121 active members, thirty-four were trustees. Dr. R. O. Beard read a paper on "The Education of the Nurse in America." The Association passed a resolution thanking the Anheuser-Busch Company for entertainment, and so successful was Miss Aiken's exhibit that the president was empowered to appoint a committee on exhibits. The registration was 123 and the newcomers included Dr. R. W. Corwin, Minnequa Hospital, Pueblo, Colo. The membership of the Association at this time totaled 684, including honorary members.

The thirteenth convention of the American Hospital Association was held in New York City, September 19-22, 1911. There was one session of this conference given over to hospital directors and trustees. The question of whether or not the annual conference should have an exhibit of equipment and supplies was one which received considerable attention and the convention authorized the President to appoint a committee on commercial exhibits. In the report of this committee, toward the end of the convention, it is interesting to note that the committee did not recommend that the Association accept pay for the space for such exhibits. The report, however, noted the demand for an opportunity to inspect new appliances and equipment, especially by visitors who came to a meeting from a distance.

The non-commercial exhibits of this convention included displays from thirty-two hospitals, one of them from Manila, in addition to a large quantity of records and forms, and to seven exhibits of the work of social service departments in hospitals. The membership committee reported the approval of 205 applications

during the year. Among the questions which were discussed at the round table were:

"In a 100-bed hospital, is the hospital and school better separated, or not?"

"How can the superintendent of a small hospital arrange her duties so as to leave the office in the evening?"

Detroit was the scene of the fourteenth annual conference, the dates being September 24-27, 1912. A casual note in the brief minutes of the session of this convention indicates that this year saw the establishment of the commercial exhibits, which since then have grown to be one of the most practical and interesting features of the annual conferences. This meeting also was featured by the introduction of social service for discussion, with Miss Ida M. Cannon, Massachusetts General Hospital, taking a leading part. At this meeting the executive committee was authorized to have the Association incorporated. The hospital laundry was introduced to the Association through a paper by Dr. Winford H. Smith. Out-patient work and trustees again came in for attention, the latter subject being handled in a paper by Mr. Borden, "Present Day Obligations of Hospital Trustees." At this convention, Dr. Goldwater's motion for a permanent bureau of hospital information was adopted, and there were two papers on food service, one on "Important Factors of Feeding Employes and Patients," and the other on "Equipment of a Hospital Kitchen."

At the fifteenth annual conference held in Boston, August 26-29, 1913, one full session was given over to nursing. At this convention the plan of holding section meetings was begun, there being a section on larger hospitals and the section on small hospitals convening at the same time. Occupational therapy was introduced to the attention of the Association in a paper by Dr. H. J. Hall on "Medical Workshops as a New Hospital Department." At this convention the scope of membership in the Association was enlarged to include members of staffs and superintendents of nurses. The name of Dr. Andrew R. Warner first appears in the Association at one of the sessions of this convention, at which he read a paper on "The Place of the Social Service Department in a Medical Institution." Social service was given an entire session.

The sixteenth annual conference was held in St. Paul, August 25-27, 1914, and one of the reports which was most enthusiastically received was that of the treasurer, who noted that \$529.00 had been paid for the space rented for commercial exhibits. The treasurer, Mr. Bacon, predicted that if the commercial exhibits were properly developed they "might make from \$1,500 to \$3,000 a year for the association." A special feature was a report by the

committee on the service the Association might render members. A suggestion was made that the Association should do more than merely hold an annual meeting; institutions were suggested, also a permanent secretary, an official organ and a suggestion toward standardization of supplies. The suggestion regarding the permanent secretary, however, was voted down when it was later presented in a resolution. The membership committee reported the approval of 283 applicants and made special mention of Miss Lydia H. Keller, who personally had obtained thirty members during the year in the Twin Cities. Round tables at this session included those on out-patient departments and on small hospitals. There was a full session on nursing, at which a committee was authorized to co-operate with the nursing association and the A. M. A. in the matter of classifying and grading nurses. Dr. Warner conducted a round table on outpatient departments and at his suggestion, in the form of a motion, the committee on out-patient departments was continued.

The seventeenth annual conference of the American Hospital Association, at San Francisco, June 22-25, 1915, was unusual in the fact that the ranking officer present was Miss Ida M. Barrett, third vice-president. The President, Dr. William O. Mann, superintendent of the Homeopathic Hospital, Boston, had died several months before the convention. This convention was held at the "Inside Inn" on the Exposition Grounds. Among the important acts of the Association at this meeting were the appointment of the committee and the appropriation of \$500 for a comprehensive commercial exhibit, and the adoption of a resolution that the Association should have a permanent secretary. There was also a joint session of the American Nurses' Association with our Association. The Proceedings of this convention contained a list of fifty-one exhibits of a non-commercial nature, all except two of which were prepared by hospitals. A great deal of credit should be given these hospitals, especially the large number from the eastern section of the United States and Canada, and this exhibit undoubtedly gave a great impetus to the movement for the exposition of hospital supplies and equipment, which not only is a valuable addition to each convention but equally important in financing the activities of the Association.

Philadelphia again was visited in 1916, September 26-29. An interesting feature of this meeting was the statement of the committee on development of the Association, to the effect that it did not believe state associations were a move in the right direction. At this convention a standing committee on out-patient work was recommended, and considerable revision was made in the constitution and by-laws. One change dealt with the method of application for membership, which up to this time was voted on by the Associa-

tion as a whole. The amendment gave the membership committee full power to pass on qualifications of applicants without taking up the time of the convention. Another important change was the creation of the board of trustees, of which the secretary of the Association would serve as secretary. This amendment called for five trustees, who would have the general conduct of the affairs of the Association, "subject to the vote of the Association," and who were required to make an annual report. An amendment also authorized the establishment of geographical sections. At this convention also, the motion was defeated to have one of the hospital journals made the official organ of the Association, the discussion being along the lines that such an official organ should be owned by the Association. This convention also was distinguished by the first official activity of the American Hospital Association relative to the standardization program of the College of Surgeons, the convention passing a resolution requesting the President to appoint a committee to co-operate with the College in its program. Another feature of this convention was separate round tables for small and large hospitals. The total membership of the Association at this time was 1,185, according to the report of the membership committee.

The nineteenth convention was held in Cleveland, September 11-14, 1917. It is interesting to note in the report of the secretary that special emphasis was given the exhibit at Philadelphia the preceding year. This report pointed to the fact that much of the value of the exhibit was lost through the failure of the program to provide time for inspection but that this oversight was remedied at the present convention. The secretary recommended definite action by the Association on the use of pupil nurses for private work outside of hospitals, baby farms disguised as maternity hospitals, standard courses for training nurses, definition of a hospital, function of trustees, superintendents, staff members and superintendents of nurses, and the standard accounting system. The report pointed out the necessity for the continuation of a permanent headquarters. The secretary also suggested that a president-elect be named at each convention in order to give the nominee an opportunity to familiarize himself with the work of the Association before assuming charge. Other accomplishments pointed out by the secretary, Dr. William H. Walsh, in his report, were the establishment of permanent headquarters and revision of business methods of the Association, publication of bulletins, increase in membership and the establishment of a bureau of registration and information. This meeting was featured by the first report of the board of trustees, which listed its activities during the year as including the appointment of a full-time secretary, determination to incorporate in the District of

Columbia, inauguration of a system of membership censorship, and a membership campaign. This meeting was unique in that one of the founders, Mr. Howell, made an address describing the organization of the American Hospital Association. According to this, Mr. Knowles was the moving spirit, corresponding with various superintendents of western hospitals. "You are on your way, doing your work despite encumbrances, saturated with the cardinal principle of the hospital, which is, 'The patient is paramount'," said Mr. Howell, in part. The entry of the United States into war during the spring of 1917 had its effect on the program for this year, as may be noted from the following papers: "Reorganization of the Civilian Hospital on a War Basis," "Reclamation of the Rejected Candidate for the Army," "War Hospitals in France and America," "The Preservation of the Health of the Civilian Population During the War," and "Experiences of a Medical Officer in France." A resolution was passed expressing the desire of the Hospital Association to co-operate to the greatest possible extent with the military authorities and with the national Red Cross, and suggesting that a competent hospital administrator be made a member of the National Council of Defense.

Institution membership was authorized at the twentieth conference of the Association at Atlantic City, September 24-28, 1918. A report of the secretary showed a membership of 1,248. The effect of the war further impressed itself on the program. The papers included "The War and Civil Hospitals," "Some Aspects of the Program of the Medical Department of the Army and Their Effect on Hospitals," "Rehabilitation and Reconstruction Work," "Human Factors in the Reconstruction of Soldiers and Sailors," "The Nursing Program of the Army," "Public Health Nursing and the War," "The Nursing Program of the American Red Cross," "The Relation of the War Program to Nursing in Civil Hospitals," "How to Secure Best Results for Students in Nurses' Schools Which Have Patriotically Increased Their Number Because of War Conditions," "The Red Cross Dietitians' Service," "A War-time Planning of Hospitals," "Some Lessons the War Has Taught," "War-time Economies," and "Extension of Civil Hospitals for Military Emergencies." Resolutions of loyalty to the President of the United States were adopted by a rising vote, and various resolutions were passed supporting suggestions and recommendations of different departments of the Government. A war service committee of seven, authorized at the previous convention, made a report recommending the use of existing hospital facilities as far as possible for military purposes and that hospitals for returned soldiers should be located in centers of population. Other recommendations of

this committee were that physicians at home should be utilized for military service and that voluntary hospital assistance should be used. This meeting saw the development of the section idea, and there were programs for sections on social service out-patient work, dietetics, hospital administration and nursing.

An outstanding feature of the twenty-first annual conference at Cincinnati, Ohio, September 8-12, 1919, was the appearance of the daily convention bulletin, originated and published by *Hospital Management*. So popular and so essential was this bulletin that in succeeding years the Association undertook its publication as an official adjunct of the conferences. A joint meeting of the American Conference on Hospital Service and the Association, and the American Dietetic Association and the Association, were high spots of this convention. Section meetings at this convention included those on dispensaries, hospital administration, nursing, social service and hospital construction.

The twenty-second annual conference, held in Montreal, October 4-8, 1920, was featured by the appearance of the first convention service bureau, which was in the nature of an advisory committee, whose members were available for advice, assistance and information by all desiring such. There was a joint session of the Association with the American Conference on Hospital Service and with the American Association of Hospital Social Workers, and the sections were the same as the previous year. The report of the trustees was presented by Dr. A. R. Warner, the new executive secretary, and included the notice of the closing of the Washington office and the establishment of the present office in Chicago. This report contained the authorization by the trustees of the establishment of state hospital associations as geographical sections of the American Hospital Association, and the creation of an associate institutional membership. The Ohio and Wisconsin Associations were formally admitted as the first geographical sections, and the trustees during the year reported that they had approved participation in the organization of the Hospital Library and Service Bureau, established by the American Conference on Hospital Service. The trustees also reported that application had been made to the Secretary of State, of Illinois, for incorporation. In his report as executive secretary Dr. Warner called attention to the establishment of a service bureau on dispensaries and community relations.

The importance of food service in hospitals was formally recognized by the Association at its twenty-third convention at West Baden, September 21-26, 1921. At this meeting the first program of the section on dietetics was given. The scope of the service rendered by the Association had been enlarged during the year by the establishment of a service bureau on hospital social service work.

and service at the convention was increased by special committees on flooring, on relations between hospitals and cities and states, and on hospital records. The popularity of the round tables, which had been annual features at the conventions, was emphasized at this meeting through the giving over of full sessions to round tables on service to patients, on hospital construction, departmental problems, hospital administration and dispensary problems. The trustees in their report called attention to the authorization of a service bureau on hospital social work. The Colorado, Indiana and Michigan Associations were admitted as geographical sections of the Association. Authorization also was granted for a section on psychopathic work, but no program was prepared for this convention. In the report of the executive secretary it was pointed out that the striking feature was the greater number of trustees taking out personal membership. This report also said that the policy of sending out bulletins to institutional members "may now be considered a permanent practice." One of the policies of the Association outlined at this convention was that all newborn babies were to be counted as patients. A motion unanimously carried put the Association on record to this effect. The Proceedings of this convention, for the first time, carried a list of commercial exhibitors. The membership committee at West Baden reported a total of 1,327. As an indication of the amount of work done by the Association, it is interesting to note that the report of the treasurer showed that the total expenditure during the year was \$36,301.98.

The twenty-fourth annual convention, at Atlantic City, September 25-28, 1922, indicated that the American Hospital Association had progressed to such an extent that hotel conventions no longer were possible. Because of the popularity and steady growth of the exposition of hospital equipment and supplies, the space required for this department in 1922 made it necessary for the Association to lease the Million-Dollar Pier. According to the Proceedings, the total attendance at this conference, including all persons given official badges, exceeded 3,000, and the registration showed hospital executives from thirty-eight states, Canada and the District of Columbia. Missouri, Pennsylvania and New England were added to the geographical sections this year. The first formal meeting of the section for trustees was held at this time, and in addition to the committees on floors and records, service at the convention was amplified by the presence of committees on renovation of gauze, laundry equipment, general furnishings and supplies, clinical and scientific equipment, foods and food equipment, and buildings; construction, equipment and maintenance. This convention approved the resolutions of the trustees endorsing the report of the committee on training of hospital executives appointed by

the Rockefeller Foundation. A big feature was the election of a president-elect nominated from the floor. Such action was authorized by the trustees during the year, and the first man accorded this honor was Dr. M. T. MacEachern, then superintendent of the Vancouver Hospital and now director of standardization of the American College of Surgeons, who will assume office at this Silver Jubilee Convention. In the report of the trustees, attention was called to the authorization of the trustees' section and its first program at Atlantic City. Approval was given the Rockefeller report on training hospital superintendents and the trustees also called attention to the exposition service committees, which were assigned space so as to be available for conference by hospital representatives desiring information. The membership committee reported the total membership as 1,600, and called attention to the associate institutional membership which had been taken advantage of by seven eligible organizations, including the National Hospital Day Committee, Department of Health of New Zealand, Pennsylvania Department of Public Welfare, Cornell University Medical College, Illinois Society of Occupational Therapists, and only one organization of a hospital—the Woman's Auxiliary of the Presbyterian Hospital of Chicago. A comparison of the program of this convention, which marked the closing of the twenty-fourth year of the Association, with the program of the first convention, indicates in a striking way the development of the hospital field. There were nine present at Cleveland at the first convention, and more than 3,000 at Atlantic City at the twenty-fourth convention. The first convention held four sessions in two days, while the twenty-fourth met fourteen times in four days. Three states were represented in 1899—in 1922, thirty-eight states, the District of Columbia and three Canadian provinces. While there were no references, even, to hospital equipment at the first convention, the twenty-fourth session represented an expenditure of more than \$100,000.00 by the manufacturers and distributors in the hospital field in order to show the Association equipment and supplies, and in addition there were seventeen displays and booths of an educational nature by non-commercial organizations, while half a dozen journals dealing with the hospitals and allied fields had exhibits.

Such, in brief, is the story of the development of the idea which was originated by Mr. Knowles in Cleveland twenty-five years ago. Only two of the seven hospital superintendents who shared his views for an active association are left, but the idea which they inaugurated so informally has steadily grown year by year, until today its effect is shown in the steadily improving care and service which the hospitals of the United States and Canada are rendering to the hundreds of thousands of sick and afflicted.

MILESTONES IN THE DEVELOPMENT OF THE ORGANIZATION

Organized at Cleveland, Ohio, September 12th and 13th, 1899
James S. Knowles, Chairman

Extracts from the original Constitution adopted:

Name. Article 1. The name of this organization shall be "The Association of Hospital Superintendents."

Purpose: Article 2. The object of this Association shall be the meeting, at stated times, of those in immediate charge of hospitals, for the interchange of ideas, comparison and contrast of methods of management, the discussion of hospital economics, the inspection of hospitals, suggestions of better plans of operating them, and such other matters as may affect the general interests of the membership.

Membership: Article 3. Membership shall be restricted to executive officers of regularly organized hospitals, irrespective of title.

1900—James S. Knowles, Chairman, according to the minutes, "responded appropriately" to the Address of Welcome.

Resolution was passed that the retirement from the superintendency shall not involve retirement from the Association.

1901—C. S. Howell, Chairman, made "reply" to the Address of Welcome.

The first Canadian delegate, Dr. Charles O'Reilley, Superintendent Toronto General Hospital, registered at this meeting.

1902—J. T. Duryea, President, was authorized to appoint a committee of five to study a uniform system of accounting for the United States and Canada.

1903—John Fehrenbach, President. Amendment to the Constitution was passed, providing for three vice-presidents instead of one.

1904—Daniel D. Test, President.

Constitution revised.

Article 3: Membership (rewritten).

Section 1. The membership of this Association shall be Active and Honorary.

Section 2. Active members shall be those who are at the time of their election the executive heads of hospitals, without reference to sex, title or denomination.

The first Question Box or Round Table was established.

1905—Dr. George M. Rowe, President, recommended (not in his formal address) the creation of Associate Membership, to include assistant superintendents.

The first foreign representative, Sir Henry C. Burdett, of London, England, was present.

1906—George P. Ludlam, President, in address, raised question of organization. "In this connection it may be wise for us to consider whether we should not become a hospital association instead of an association of hospital superintendents. This would involve the admission to membership of those other than superintendents who are identified with hospital work."

This was in part accomplished at this session by amendments to the Constitution as follows:

Name: Changed.

Article 1. The name of this Association shall be "The American Hospital Association."

Purpose: (rewritten).

Article II. The object of this Association shall be the meeting, at stated times, of those in immediate charge of hospitals, for the interchange of ideas, comparison and contrast of methods of management, the discussion of hospital economics, the inspection of hospitals, suggestion of better plans of operating them, and such other matters as may affect the general interest of the membership.

Membership: (Associate membership added.) (Proposed by Dr. Hurd in 1905.)

Article III. Section 1. The membership of this Association shall be Active, Associate and Honorary.

Section 2. Active members shall be those who are at the time of their election the executive heads of hospitals, without reference to sex, title or denomination.

Any person, once an active member, may continue such membership subject to all rules pertaining to membership.

Section 3. Associate members shall be executive officers of hospitals next in authority below the superintendent. Associate members shall not have the right to vote.

1907—Dr. R. R. Ross, President.

Constitution amended as recommended by the report of the Committee on Development of the Association.

Purpose: (Rewritten.)

Article II. The object of this Association shall be the promotion of economy and efficiency in hospital management.

Membership: Changed to admit trustees to active membership.

Article III. Active members shall be those who at the time of their election are trustees or executive heads of hospitals, without reference to sex, title or denomination.

1908—Dr. S. S. Goldwater, President, advocated departmental sections. "If I may venture to offer my opinion, it is that we should proceed to modify our organization so as to provide, first, for a central body, presided over by the President of the Association, where all the members could meet in common for the consideration of matters of interest to the whole Association; and second, for a series of working sections, each with its proper officers, organized to hold separate but simultaneous section meetings, for the consideration of problems of special interest and concern to each of the great groups of present and future members."

This was accomplished by constitutional provisions in 1916.

Advocated admission of staff and nursing heads to membership. "We have need not only of trustees, superintendents and assistant superintendents, but of hospital physicians, hospital surgeons and hospital pathologists, and we have place and need also for those who are devoting their energies to the welfare of that great arm of the hospital service, the department of nursing."

Constitution amended to make the staff and nursing heads eligible to associate membership in 1913 (see 1913) and the staff eligible to active membership in 1916 (see 1916).

1909—Dr. John M. Peters, President.

Constitution amended to extend associate membership.

Article III. Associate members shall be executive officers of hospitals next in authority below the superintendent, contributors to or officers or members of the associations the object of which is the foundation of hospitals or the promotion of the interests of organized medical charities. Associate members shall not have the right to vote.

1910—Dr. H. B. Howard, President.

On motion of Dr. Goldwater it was voted that "on or before January 1, 1914, a permanent secretaryship and a Bureau of Hospital Information be established." This matter had been discussed before the Association by Dr. Goldwater at previous conferences.

1911—Dr. W. L. Babcock, President.

"Another milestone that looms up in the future is the establishment of a central association bureau, where it is hoped that a permanent secretary of the Association may have his offices and become a receiver and distributor of information and data on hospital subjects."

A permanent, paid secretary and an office designed to function as a central information bureau were secured in 1916.

1912—Dr. Henry M. Hurd, President.

On motion of Dr. J. N. E. Brown, the Executive Committee

was instructed to secure the incorporation of the Association "preferably in the District of Columbia."

The Association was incorporated in Illinois in 1921.

1913—Dr. Frederick A. Washburn, President, endorsed Dr. Goldwater's recommendation (made in 1908) that membership be extended to staff members and to superintendents of nurses.

"Let me make a strong plea for such a change in our Constitution as will again broaden our membership and make us truly The American Hospital Association."

The constitution was amended later in the session to admit staff members and superintendents of nurses to associate membership, by inserting in Article III, Section 3, the words "hospital physicians, surgeons, pathologists and superintendents of nurses."

Advocated, and, with the consent of the Executive Committee, arranged the program to provide a trial of sections, one for "large hospitals" and one for "small hospitals." This type of section has been discontinued, yet it introduced the division of the Conference into sections.

1914. Dr. Thomas Howell, President, advocated a board of trustees. "They should be elected, not appointed, and should serve for several years with partial retirement each year."

The constitution was amended in 1916 to provide a board of trustees as here recommended.

Discussed institutional membership, but advised against it.

"Taking everything into consideration, it would appear that it would be better to devise other means for increasing the membership of this organization."

1915—Dr. H. T. Somersgill, Acting President, recommended a form of institutional membership, as a sub-division of active membership through hospital trustees as representatives, and called "Corporate Membership." No action.

Dr. Wm. O. Mann, President, died in the early part of his administration.

1916—Dr. Winford H. Smith, President, advocated Geographical Sections.

"Might it not be more beneficial in the end if there were formed an Eastern, a Western, a Central, a Southern and a Canadian Hospital Association, each meeting every two years in its own territory? Then let the American Hospital Association meet on the alternate years, and make the membership in the larger association dependent upon membership in the smaller bodies. The smaller associations might interest many whom we do not now reach, and by thus stimulating their interest will result in a considerable increase in the membership of the larger organization."

Renewed Dr. Howell's plea for a board of trustees.

Later in the session, the Association amended the constitution to provide for both geographical and departmental sections. Assistant superintendents and staff members were made eligible for active membership and department workers made eligible for associate membership.

Article III: Membership (rewritten).

Section 2. Active members shall be those who at the time of their election are trustees or superintendents, or assistant superintendents of hospitals or members of the medical staffs of hospitals, however such officials may be designated. Any person once an active member may continue such membership so long as the rules of the Association are conformed with.

Section 3. Associate members shall, at the time of their election, be heads of any executive, administrative or educational department of a hospital, other than as designated in Section 2, or contributors to, or members of, any association or board, the object of which is the foundation, maintenance or improvement of hospitals or the promotion of organized charities for the improvement of health. Associate members may hold office, but shall not have the right to vote at meetings of the Association.

Article V. Board of Trustees. (New Provision.)

There shall be a board of five Trustees, which shall have charge of the property and financial affairs of the Association and shall hold title thereto under the name of "Trustees of the American Hospital Association." The President and Treasurer shall constitute two of said Trustees, and one Trustee shall be elected annually, at the convention, to serve for three years, excepting that in 1916 one of said Trustees shall be elected for one year, one for two years and one for three years. Trustees shall serve until their successors are elected.

The Board of Trustees shall, always subject to the vote of the Association, have general control and management of the business of the Association and may appoint and fix the salaries of such officers and agents as it may deem necessary or expedient and establish rules and rates for the use of such facilities as it may in its judgment provide. They shall make an annual report to this Association.

Article VI. Sections. (New Provisions.)

In order to facilitate the work of the Association, sections may be formed and discontinued from time to time, as the Trustees may by vote determine. Such sections may be geographic, in order that recognized meetings of the Association may be held in various parts in places not easily accessible to all members, or may be departmental in their nature and devoted to any recognized branch of hos-

pital work. Proceedings at any authorized section of the Association approved by the Board of Trustees may become a part of the proceedings of the Association, and any resolution adopted by a geographic section shall be recognized as a motion duly made and seconded at any general session of the Association, and vote of the general Association shall be taken thereon.

The practical effect of the Board of Trustees can be noted in the subsequent addresses. Hereafter those policies of the President which could be put into operation promptly were authorized earlier in the year through the Trustees and reported in the addresses as accomplished facts. The recommendations presented are for future, not immediate, action.

1917—Dr. Robert J. Wilson, President, reported and discussed the selection of a full time secretary by the present Board of Trustees and also the establishment of a permanent office.

Constitution amended to broaden the object of the Association.

Article II. Object. (Rewritten.)

The object of this Association shall be to promote the welfare of the people so far as it may be done by the institution, care and management of hospitals and dispensaries with efficiency and economy, to aid in procuring the cooperation of all organizations with aims and objects similar to these of this Association; and in general, to do all things which may best promote hospital efficiency.

1918—Dr. Arthur B. Ancker, President, strongly urged adoption of the report of the Special Committee on Institutional Membership appointed during the year by him to work out a definite plan for Institutional Membership and in the work of which he had maintained an active part.

"It is the honor of a lifetime to be here today and recommend, as your president, the adoption of this report, knowing full well, as I do, that in the progressive development of the American Hospital Association it will mark an historic milestone."

This report was adopted and the Constitution amended as recommended by the report providing for active institutional membership in its present form. (See present Constitution.) Associate Institutional Membership was added in 1921.

1919—Dr. A. R. Warner, President, discussed and justified the policy of the present officers of the Association to develop service to members and the recent establishment by them of the Service Bureau on Dispensaries and Community Relations.

"It is necessary that the American Hospital Association render to the constituent hospitals positive service having practical usefulness and a definite value in comparison to which the annual sum paid shall be relatively small."

The first Service Bureau (dispensaries and community relations) was authorized by the Trustees April 25, 1919.

Advocated affiliation with state hospital associations as Geographical Sections under terms providing for common membership.

"The time has come when the Association must give special attention to the development of state and sectional hospital associations and make definite arrangements for affiliation with all these. In addition to the rendering of all assistance possible in the formation and development of these associations, there should be some plan of composite personal membership."

The Ohio Hospital Association became the first Geographical Section in 1920.

1920—Dr. Joseph B. Howland, President, reported and discussed the recognition by the present Board of Trustees of the Ohio Hospital Association as the first Geographical Section of the Association.

"A vote of the trustees this year whereby the Ohio Hospital Association was accepted as a Geographical Section of the Association seems to me to mark a most important step forward; in fact, so important as to warrant calling it the beginning of a new era in our history."

Reported the establishment of the Hospital Library and Service Bureau under the direction of the American Conference on Hospital Service, supported by gifts from the Rockefeller Foundation and annual contributions from several members of the Conference, including the American Hospital Association.

Advocated a bureau of standards and supplies in the Association.

"If we had a bureau to which we could turn for advice on this subject, it would prove to be of the greatest assistance to us."

Emphasized the necessity of hospitals obtaining a large number of autopsies. Resolution passed by trustees in 1921.

The Association headquarters moved to Chicago in 1920.

1921—Dr. Louis P. Baldwin, President.

"There has never been a time when it was so necessary that the hospital should fitly fulfill its teaching function."

"The time has come—its coming has been recognized in some institutions—when the function of the hospital in the training of nurses should be transferred to educational institutions of university or college type, with which the hospital should affiliate for

the purpose of giving to nursing students their laboratory or clinical opportunities."

(See resolution of Trustees 1923.)

Resolution passed that the Trustees urge upon the Association as a body, upon each member individually and upon hospitals in general, the necessity for diligent action on the part of physicians and surgeons practicing in hospitals to make every effort to secure the performance of autopsies in all cases of death in the hospital, and that hospital executives be held responsible for securing the performance of an adequate number of autopsies in their institutions, in order to insure the maximum benefit in the medical work in the institution.

By vote, the Trustees approved the establishment of a Trustee Section, and authorized the President to appoint the officers thereof.

Resolved, That the Committee on Constitution and Rules be and hereby is requested to draft an amendment to the by-laws, increasing the annual dues of associate members from two to three dollars a year, and to propose in its regular report the adoption of such an amendment by the Association.

1922—Dr. George O'Hanlon, President.

"The facilities of communication as between members and officers of this Association are, as you know, practically restricted to the bulletins issued at irregular intervals by our Secretary. The time must come when we shall have our own publication."

At a Trustees' meeting—January 12, 1922, it was

Resolved, That the President be and hereby is authorized to appoint five special committees, of three members each, to inspect the exhibits in the 1922 Exposition, one committee to be assigned to each of the following five general divisions: (1) Building—Construction, Equipment and Maintenance; (2) General Furnishings and Supplies; (3) Clinical and Scientific Equipment and Supplies; (4) Foods and Equipment for Food Service; (5) Laundry Equipment and Supplies. These committees were appointed by Dr. O'Hanlon.

The New England Hospital Association recognized as a geographical section.

Resolved, That the Trustees recommend to the consideration of the Committee on Constitution and Rules, the following amendments to the Constitution:

(a) Amend first paragraph of "B Personal" of Section 1 of Article III, to read as follows: Active personal members shall be those who at the time of their election are trustees or superintendents or assistant superintendents of hospitals or members of the medical staffs of hospitals, however such officials may be designated, and the executive officers of any state or nation-wide organ-

ization having as its primary purpose the development of hospitals and hospital service. Any person once an active member may continue such membership as long as the rules of the Association are conformed with.

(b) Amend the first paragraph of Article V to read as follows and to designate it as "Section I": There shall be a Board of Trustees, which shall have charge of the property and financial affairs of the Association, and shall hold title thereto under the name of "Trustees of the American Hospital Association." The president, president-elect, the retiring president and treasurer shall be ex-officio trustees, and two trustees shall be elected annually, at the convention, to serve for three years. Trustees shall serve until their successors are elected.

(c) To designate the second paragraph of Article V as "Section 2."

(d) Add the following to Section 3 to Article V: The Trustees shall have the power to fill by appointment vacancies existing in any elective office, and such appointees shall hold office until the close of the succeeding annual convention.

1923—This year has been full of activities, as you will see by the report of your trustees and your executive secretary. In these reports are the milestones that have rounded out our twenty-five years of service.

In starting out on a new era, the Association needs you, your ideas, your experience, your participation in all its activities, and you need the Association to develop you and your institution.

We have gathered here from different parts of the country. We have different views, politically and religiously. We shall enter into the various activities of this conference with different viewpoints, for we all think differently. Out of all this chaos and clash of opinion will develop big ideas and men and women to carry them out. We are not all natural leaders. None of us are distinguished, but no one is a negligible member. Your work, no matter how small your hospital, is work for suffering humanity—the greatest work that God has given men on earth.

Thus I complete a brief history of our Association—and what of the future? Who can prophecy? Can you predict the changes that will take place in your own institution in twenty-five years? No more can I prophesy the future of the American Hospital Association. However, I will submit four suggestions for your consideration, namely:

- A section of state departments,
- A section on cancer control,
- A section on the care of the insane, and
- A section on chronic disease hospitals.

AMERICAN HOSPITAL ASSOCIATION

SECTION OF STATE DEPARTMENTS

Dr. Goldwater in a letter of August 23, 1923, says: "In view of the strategic position which the state authorities hold, their activities ought not to be ignored by the American Hospital Association."

It was my hope that the state associations would become so active that they would command attention of the state authorities to the extent that cooperation would be brought about for the mutual benefit of both. I see no future in this respect and am now satisfied that the parent association should take up the matter as soon as the trustees see fit to do so. The splendid cooperation we have had this year with the authorities in Washington encourages me in this belief.

CANCER CONTROL

Cancer is an institutional problem and one which the superintendents should have more knowledge of; therefore, the Association should have a section working together with the American Society for the Control of Cancer.

THE CARE OF THE INSANE

A section to develop higher standards in hospitals for the insane and to encourage departments of psychiatry in general hospitals to the end that insane patients will have the same careful treatment that other patients receive.

CHRONIC DISEASE HOSPITALS

The field of chronic disease hospitals is quite undeveloped, therefore the Association should take up the question of a widespread educational campaign to arouse a deeper interest in the hospitalization of chronic patients.

I cannot close this brief history without thanking the officers, trustees, members of committees, the membership in general, the exhibitors and the good people of Milwaukee for their cooperation and untiring efforts and all those who have contributed to make this conference a success.

We are proud of our past, proud of its achievements and proud of its ideals, though not yet fully achieved.

Our Association has been faithful throughout the years to the highest standards it was possible to conceive and apply, therefore it is good to see the faithful recognition of these ideals during the past years develop the organization into greater national prominence. This being true, we now pledge ourselves to do our utmost to the end that the hospital world will not be disappointed in their desire to acquire knowledge from us.

We have tried to make this twenty-fifth anniversary program a tribute worthy of those wonderful men and women of our organ-

ization—among them my own beloved wife—who have passed on to their final resting place, that they may look down upon us and say, "Well, done, good and faithful servants."

COMMENTS BY MR. DANIEL D. TEST

October 3rd, 1923.

Mr. Asa Bacon, President,
American Hospital Association,
Chicago, Ill.

Dear Mr. Bacon:

I very much enjoyed reading your account of the progress of the American Hospital Association. I am suggesting one or two little corrections, but it seems to me there is not anything in the article which you would not want to have printed in the Proceedings.

The real memorable event in the third meeting in New York City was one of the best papers I have ever heard from any man's pen read by Dr. C. Irving Fisher, subject—"The Superintendent Himself." Dr. Fisher was the first of the prominent superintendents of the day to take an interest in the Association. In fact, several declined to have anything to do with the Association at that time, and only three or four New York superintendents gave us the pleasure of attending the meeting which was held in New York City. It was an interesting fact that the superintendents of the city hospitals of greater New York took an interest in the Association before any of the private hospital men. For instance, at the second meeting which was held in Pittsburgh, Dr. Duryea, King's County, Brooklyn, Dr. Stewart, from one of the hospitals on Blackwell Island, and Mr. O'Rourke (?), Superintendent of Bellevue Hospital, were all present.

I have always been very sorry that I did not get to the meeting in Cleveland. I was one of the small group invited, and had fully expected to be there, but just at the last, on account of illness in the family, was not able to go.

I do not know whether you would think it worth while to refer in the report to the very great difficulty that was experienced in those early years of getting the more prominent superintendents in the country at the time interested in the movement. Dr. Fisher and Dr. Peters gave it a great impetus by their presence at the meeting held in New York. After this New York meeting, a committee of three of us personally visited a large number of the superintendents in the east and pleaded with them to come to the fourth meeting held in Philadelphia and give us their support. As a result of this missionary work,

Drs. Hurd, Rowe and Howard, and Mr. Ludlum and Mr. Lathrop, of New York, and several others were induced to come in, and it was at this meeting that the practice of having chairmen of the different sections was started. Instead of the President presiding throughout the meeting, he only took the chair during the business session, and the chairmen of the different sections took charge of the meetings when papers and discussions were given. For instance, we had hospital construction, accounting, and various other subjects, with a chairman for each one.

This fourth meeting in Philadelphia was the first attended by any considerable number of the prominent superintendents of the country, and in some ways, marked the beginning of an epoch. I am not expecting that you will want to speak of these things, but it is an interesting fact that the second meeting in Philadelphia, or the seventeenth annual meeting, was the beginning of another epoch in the Association. This Philadelphia meeting was the first that really demonstrated what could be done in the matter of commercial exhibits. The local committee under Dr. Walsh took charge of this matter, and sold space amounting to over four thousand dollars, and had a net profit of something over three thousand dollars to turn over to the Association. It was the result of the commercial exhibit that gave us money to employ a full time secretary, which was decided upon at that meeting.

I am returning the paper to you and want to thank you very much for giving me a chance to read it.

Very respectfully,

(Signed) Daniel D. Test.

COMMENTS OF MR. DEL T. SUTTON

135 Blaine Avenue,
Detroit, Michigan, Oct. 26, 1923.

Mr. Asa Bacon,
President American Hospital Association,
Chicago, Illinois.

Dear Mr. Bacon: During the coming week the American Hospital Association will observe the Silver Jubilee anniversary of its establishment. Twenty-five years, a quarter of a century, in the perspective seems a long period; retrospectively it has passed all too quickly to the most of us, but in our retrospection we may always find something in which we have had an active part and from which we derive much satisfaction.

Twenty-five years ago, at the Colonial Hotel in Cleveland,

less than a dozen of us connected with the American hospital field met and organized the association now known as the American Hospital Association. We realized the need of such an association, and we were all optimistically hopeful for the future of the association, but I doubt if any of us realized the growth to be attained or the work that has been accomplished. From its small beginning the Association has grown and enlarged its scope until now its influence and power is felt in practically all lines of endeavor connected with the American hospital field. It has brought system out of the chaotic, it has broadened the work and influence of hospitals, it has strengthened the hands of the medical and surgical and the nursing professions, it has made it possible for the people generally to obtain more efficient care in sickness and in injury—it has, in fact, proven the value and efficiency of the hospital to the American people.

I can not but feel thankful that I had a hand in the original organization of the American Hospital Association, and that for about fifteen years I was able to render some aid in the growth and development of the Association.

I wish it were possible for me to attend the Silver Jubilee anniversary and thus be able to witness in concrete form the evidences of what the Association has accomplished.

I sincerely hope that your Silver Jubilee anniversary meeting may more than meet your expectations, and that the American Hospital Association may continue to grow in strength and efficiency.

Very truly yours,

Del T. Sutton.

NOTE: There was a commercial and non-commercial exhibit at the Detroit meeting, Miss Aikens having active charge of the latter and I had active charge of the former. This, I think, was the first exhibit following the original one at Buffalo, as several of the leaders were not in favor of the exhibit for some time.

COMMENTS BY MR. CHARLES SUMNER HOWELL

October 19th, 1923.

Mr. Asa S. Bacon, President,
American Hospital Association,
Chicago, Illinois.

Dear Mr. Bacon:

* * * Your historical sketch is an admirable summary of the story of the birth of your great organization. It has hardly yet visualized the ideals of the founders, because all of the hospitals and kindred institutions of America have not yet come into

the fold, but you are progressively working that way and the ideal is sure to be realized. * * *

You ask me to comment upon the Association. I can only say that it is its own abundant comment. It came—to paraphrase the late Chief Justice Joseph Story—as the United States came, “From the necessities of the people.” This is the history, in a word, of everything that is humane, that is merciful, that is practicable, that is necessary. It began, as all great things begin, in a small way, in a small room in a Cleveland hotel. I think only three states were represented. Today, I assume that the 48 states have representation and expression in one of the most important and efficient associations in the world.

Please say to those who will be present that my pride, my sympathy and my infinite admiration are involved in my congratulations to them upon the occasion of the Silver Anniversary.

With thanks to you personally and officially, and congratulations to all,

Very sincerely,
(Signed) Charles Sumner Howell

REPORT OF THE TRUSTEES

Since the last report to the Association your Trustees have held five meetings. Two of these were held in Atlantic City, during the Twenty-fourth Annual Conference, in order to transact the business incident to the annual meeting. The others were held in the office of the Association. The development of the Association has required of the Board of Trustees increased activity and responsibilities. With an annual budget approximating \$50,000, there are many questions requiring decision.

Much of the work of the Trustees is necessarily concerned with routine matters—authorizing specific procedures and policies for the guidance and support of the officers, which, though important, need not be mentioned here. Many things, however, should be reported for the information and approval of the members and their delegates.

After careful consideration of various needs of the hospital field presented during the year, the Trustees have authorized the appointment of several new committees, and it is the feeling of the Trustees that the usefulness of the Association will be increased by the continuance of the policy to appoint and maintain special—

may we say research committees—as rapidly as the need of them is demonstrated and financial support is assured.

Realizing that properly trained executives will be one of the most important factors in the development of the hospital field, and in order to secure the full benefit from recent study of this subject, the Trustees authorized a committee to be known as the Committee on the Training of Hospital Executives. This committee is asked to educate public opinion in this important matter as rapidly as possible, and to develop ways and means for the systematic training of executives.

In order to have available some building construction standards—including building codes and rules of construction applicable to hospitals—the President was authorized to appoint a committee to formulate and submit rules and regulations helpful to hospitals contemplating building.

The intern question also came up for review. In the hope that something may be done to relieve the increasing difficulties of this problem, the President was authorized to appoint a committee of three or more persons to study the entire intern problem and cooperate with other interested organizations and committees. The committee shall, from time to time, make such reports and recommendations to the Trustees and the Association as shall seem advisable.

The plan of the National League of Nursing Education for the classification of nursing schools was officially presented to the Trustees. The following resolution was adopted:

RESOLVED, that the Trustees of the American Hospital Association do hereby express approval of the general plan that schools of nursing be classified by a properly qualified and authorized committee representative of all interests involved; and, at the proper time, will officially cooperate through the appointment of suitable persons to represent the Association and the interests of hospitals on this committee.

A request for the reestablishment of the Small Hospital Section was received from several of our members. In consideration of the number and importance of the smaller hospitals in our country, and of the fact that they have some problems differing from those of larger hospitals, the President was authorized to reestablish this section, to appoint a chairman and a secretary, and to arrange a session for this Conference.

The receipt of a number of letters from hospitals in foreign countries, especially in South and Central America—inquiring as to the work of this Association, and expressing a desire for our literature, interested the Trustees. Recommendation was made

to the Constitution and Rules Committee that an amendment to the constitution be drafted providing for a special form of membership for these hospitals.

The associate personal membership dues were increased from \$2.00 to \$3.00 a year, for the reason that \$2.00 no longer pays for the printed matter sent routinely to these members. It seemed proper that all members pay at least the first cost of maintaining their memberships.

The present plan of collecting the annual dues of personal members through and by the geographical sections is clearly not successful. No member of a certain geographical section was entitled last year under the by-laws to vote at the Conference. No dues at all from the section in question had been paid. The sections (excepting the new ones) now average fifty per cent more members in arrears than the average of the states directly paying. This situation must not continue. The officers of the various sections are asked to meet with the Trustees during this Conference for the purpose of working out a better arrangement.

In recognition of valuable service rendered to the members of the Association and the hospital field by the Hospital Library and Service Bureau, the annual appropriation from the Association to this Library was increased from one to two thousand dollars. This figure was determined, not by the value of this service, but by the limited income of the Association.

An official delegate from the American Hospital Association to the Octocentenary of St. Bartholomew's Hospital, London, was authorized and the selection of this delegate placed in the hands of the President. Dr. S. S. Goldwater was appointed and was present at the celebration.

The question of an official insignia for the Association was again brought before the Trustees. All agreed as to the value and need of an insignia designating first this Association and secondly hospital service in general; but no design was submitted or approved. The President and Executive Secretary were made a Committee to study the problem further—who will gratefully receive suggestions and expressions of opinion regarding it.

The question of giving out for publication facts and statistics concerning institutional members collected by the Association was brought before the Trustees. Their decision was to authorize the Executive Secretary to publish or otherwise announce the names of hospitals from which items of statistical importance have been obtained for the Association, provided that no objection thereto has been expressed by those hospitals, and provided also that the name of the institution will add value to such figures. This is

called to your attention, first, that you may understand the policy to be followed, and second, that information furnished the Association which hospitals desire not to have published with their names, may be protected by their asking to have the name withheld.

Your Trustees feel that the question of keeping the public informed of the work and needs of our hospitals, and of using proper effort to educate it to a realization of its duties to hospitals, is a very important one. The following resolution was therefore adopted:

RESOLVED, that the American Hospital Association endorses and approves the setting apart of an annual period during which hospitals throughout the country shall endeavor to make known their purposes and activities to the general public, especially with respect to the service of hospitals to the public, and with respect to the opportunity of the public to aid and support the work of the hospitals.

Within the year membership of the American Hospital Association in the National Fire Protection Association has been established.

It is the desire and intention of the Trustees to protect as far as possible all hospitals, as well as members and delegates here assembled, from unwise and unsatisfactory business dealings. As contributing to this, careful investigation of all firms permitted to exhibit at the Conference was ordered, and the following resolution, quite similar to a corresponding resolution last year, was adopted:

RESOLVED, that the Executive Secretary be and hereby is authorized and instructed, whenever so requested by any hospital, to undertake the settlement and adjustment of any question arising from the purchase during the Conference of any article from any exhibitor at the 1923 Conference of the Association and to act likewise for any Institutional Member regarding any purchase from any exhibitor at this Conference made during the period between the 1923 and 1924 Conferences, the object being to assure to hospitals, and particularly to Institutional Members, satisfactory results from dealing with those who are permitted to exhibit at the Association meetings.

The Board reluctantly accepted the resignation of Miss Mary M. Riddle as a Trustee of the Association, but the reasons advanced by Miss Riddle were considered to be sufficient and valid. Miss

Margaret Rogers was appointed to fill out the term of Miss Riddle, which expires with the present Conference.

In order that the greatest number of important subjects may be considered and discussed at the Conference, a comprehensive plan for the program of both General and Sectional sessions was presented by President Bacon at the January meeting. The plan on being reviewed was felt to enable members to hear the largest number of subjects in which they are interested, and also to produce an increased amount of valuable material. The plan was approved by appropriate resolutions and is as follows:

All committee reports shall be printed and circulated before presentation to a general session.

The publication of the reports in the various hospital magazines just prior to the Conference was also authorized with the hope that interest in them might be aroused and discussion be more to the point.

The chairmen shall present the reports to a general session in a concise manner without reading, and the reports shall be referred to the appropriate session for consideration and critical discussion. It was necessary to anticipate this action of the general sessions in order to have the program printed.

All numbers on the program (including General as well as Sectional Sessions) shall be set for a definite hour, and this schedule shall be strictly observed, that members may go from one section to another to take part in subjects in which they are most interested.

In addition to the reports referred to the sectional meetings, the chairmen of the sections shall present independent programs—limited to two papers—that ample time may be available for both papers and reports.

In order that the program may be carried through satisfactorily it will be necessary for the various subjects to be presented in the sectional meetings on schedule time. To do this, it may be necessary to interrupt long or spontaneous discussion and defer it to the close of the scheduled program.

The program has been arranged on these lines. We ask your prompt attendance at meetings and suggest that you study reports before hand, that the discussions may result in the greatest good to the greatest number.

While we must always feel that better results should be accomplished, we join with President Bacon in a feeling of satisfaction when we look back over the history of the Association during the twenty-five years of its existence. When we think of that little meeting of eight superintendents twenty-five years ago and the program presented at that time and compare it with this

splendid Conference and all that the program represents this year, we must be impressed with the progress the Association has made. But much more important is the influence the Association has had on the development of hospital work in this country. Twenty-five years ago only a few hospitals had seen even the dawn of the new hospital era. Most of us were still living under the old. The American Hospital Association has had no small part in the marvelous progress of this period.

REPORT OF THE TREASURER

Robert J. Wilson, M. D., Director of Hospitals
Department of Health
New York, N. Y.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING AUGUST 31, 1923

(Extract from the Report of Arthur Young & Co., Auditors)

BALANCE, AUGUST 31, 1922 \$ 3,622.34

RECEIPTS:

Institutional Membership Dues

Active	\$10,404.50	
Associate	80.00	
		<hr/> \$10,484.50

Personal Membership Dues

Active	\$ 4,473.00	
Associate	420.00	
Life	625.00	
		<hr/> 5,518.00

Commercial Exhibits

1922 Exhibit	\$ 8,463.50	
1923 Exhibit	9,460.00	
		<hr/> 17,923.50

Interest on Bank Balances.....		31.50
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Sales of Transactions.....		84.00
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Sales of Bulletins.....		235.95
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Reimbursement for Expenditures made on account of:

Commercial Exhibit	\$ 2,850.00	
Committee for Training Hospital Social Workers.....	1,001.21	
Stedman Products Company.	584.00	
		<hr/> 4,435.21

Total Receipts.....		<hr/> \$38,712.66
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\$42,335.00

DISBURSEMENTS:

Office of the Treasurer—General	\$	25.00
Trustees		
General	\$	13.00
Traveling		417.08
		<hr/> 430.08
Home Office		
Salaries	\$17,369.13	
Traveling	339.67	
Equipment	153.60	
Supplies	1,252.04	
Rent	1,599.96	
Telephone and Telegraph....	151.14	
Printing, Multigraphing, etc..	692.44	
Exchange	59.65	
Postage	1,375.04	
Bulletins	1,415.66	
Transactions	4,792.36	
Miscellaneous	333.01	
		<hr/> 29,533.70
Convention Expense		
Commercial Exhibit	\$ 5,624.61	
General	2,699.54	
		<hr/> 8,324.15
Service Bureaus		
Social Service	\$ 327.86	
Dispensary and Community Relations	75.00	
		<hr/> 402.86
Committees		
For Training Hospital Service Workers	\$ 658.93	
For Study of Gauze Renova- tion and Standard Surgical Dressings	1.75	
Canned Goods	52.46	
Out-Patient	78.00	
		<hr/> 791.14
Flooring Study		548.66
Donation to American Confer- ence on Hospital Service Library		1,250.00

AMERICAN HOSPITAL ASSOCIATION

Transferred to Life Membership Fund	275.00
	<hr/>
Total Disbursements	\$41,580.59
	<hr/>

BALANCE, AUGUST 31, 1923:

Cash in Bank, Union Trust Company	\$ 654.41
Petty Cash Fund on Hand...	100.00
	<hr/>
	\$ 754.41

PRESIDENT BACON: This report has been approved by Arthur Young & Company, public accountants, of Chicago. We will now hear the report of the Executive Secretary.

SECRETARY WARNER: Before proceeding with the report proper, there is a communication from the Executive Secretary reading as follows:

MEMBERS TO BE REPORTED TO THE ASSOCIATION

The Executive Secretary reported the fact that two hospitals secured membership in the Association on properly made out and signed applications and the payment of initiation fees, but have paid no annual dues. After discussion as to the proper procedure, the following resolution was, by motion, proposed and duly adopted:

WHEREAS, The McKeesport Hospital at McKeesport, Pa., and the Lakeside Hospital at Seattle, Wash., have failed to comply with the requirements of the Association as to payment of dues, be it therefore

RESOLVED, that the Executive Secretary is hereby instructed to report these members to the Association for action at the coming Conference in accordance with the provisions of the Constitution and By-Laws, with the recommendation that these members be suspended for non-payment of dues, unless proper adjustments are made previous to the Conference.

These adjustments have not been made; therefore this recommendation is before you for action.

DR. JOHN D. SPELMAN: I move that these two named hospitals be dropped from the membership roll of the Association.

The motion was unanimously adopted.

REPORT OF THE EXECUTIVE SECRETARY

A. R. Warner, M. D.

Your Executive Secretary is pleased to report that the past year has been one of marked progress. Of this Conference, its program and accomplished plans, you will judge for yourselves. The address of your President has outlined the milestones in the development of the Association up to this time, and also some of the existing opportunities for future progress. The report of the trustees has related the basic decisions of the board during the year. The reports of the Treasurer and Membership Committee will present the progress of the year in figures. But these reports do not tell all the story. There is more.

In the past year the name of the American Hospital Association and the address of 22 East Ontario Street have become known to many more, and more favorably known than heretofore. There is ample evidence of this in the greatly increased volume of correspondence from persons and organizations outside of our membership. There is evidence of this in the many more letters received asking of us specific information concerning the hospital field and in the increased number of visitors at the office seeking information, assistance or technical advice. There were throughout the year many other indications that the Association was making distinct progress toward the position it should hold generally and in the development of the functions within the field it should have.

More progress was made the past year in the further development of policies already inaugurated than in developing new policies, and the results have indicated the wisdom of this. The Association is in organization and policies practically the same as last year but grown larger, stronger and better in every activity.

COMMITTEES

The practical distinctions between the "standing" and the "special" committees have almost disappeared. The special committees stand from year to year until their work is done and the standing committees take on special problems. This has come directly from the efforts of the committees of both types to produce and report definite information and material of maximum value. The idea of thorough investigation of special problems carried on by the Association through committees has long been established, but, unfortunately, has been and yet is curtailed by lack of funds.

A most valuable idea supplementing the idea of the technical special committee has spontaneously appeared and has gradually

come into prominence, appearing first in the Out-Patient Committee. This calls for the appointment and interprets the function of various committees as a means of carrying on for the Association a continuous study of and a watchfulness over special problems or subjects active in the hospital field and the reporting from year to year to the Association of the important changes, events and developments in these problem or subjects. Combined with this is the idea that these committees should officially represent the Association in all the activities in and of these problems, keeping a constant watchfulness over them and exerting a helpful influence whenever possible. Cooperation of the Association with other organizations through these committees is also assumed. Many of our committees are now approaching this type.

Our committee program and organization is all important, for therein lies the basic producing power of the Association and this must grow with every year. This organization must be carefully studied, directed and supported to the limit.

As the committees increase in number, with the corresponding increase in personnel, the problem of correlating their activities each with the others, and of providing the personnel with official information and the routine assistance of the home office, will appear and, in fact, has appeared. The volume of work involved in the proper support of the committees by the home office is great. This is one of the problems now demanding solution by your trustees and Executive Secretary. It is a matter of increasing and expanding the work of the home office.

MEMBERSHIP RECORDS

The fact that this meeting would be the Twenty-fifth Annual Conference of the Association sharply emphasized the value of the membership records, also the necessity for getting them into permanent form.

An effort to compile a table of the totals of the annual membership rolls as published in the annual Proceedings and of the attendance of the past Annual Conferences called attention to discrepancies and omissions in the published figures. To get and to check many of these figures it was necessary to actually count the members appearing on the records for these years. The published figures were not sufficient. Some of these records were missing and were not readily located. We are, however, now pleased to report that all the old records have been found and filed in the office of the Association. All the missing figures have been determined and checked. The table which has heretofore been pub-

lished several times in incomplete form appeared complete and correct in the News Bulletin of this morning.

We wish to announce also that in the printed Proceedings of this Conference the membership roll will show the year in which each became a member of the Association. This item of record is now complete.

The proper protection of the records of the Association was studied, for it was recognized that a loss by fire or otherwise would prove a real disaster. An approved and standard fireproof safe of ample size was purchased and installed and all original and essential records are now kept therein. Details in the form and methods of keeping the records were adjusted to the constant use of the safe repository. For the first time, the records at the registration desk are duplicates, thus avoiding risks from transportation. The originals are in the fireproof safe at the home office of the Association. The Association has celebrated the twenty-fifth anniversary of its founding by getting the complete—not merely current—membership records in better, and, we believe, proper condition, and by giving to them adequate protection. This has been accomplished only by the expenditure of time, effort and a considerable amount of money, all of which were necessarily diverted from other activities; but we believed the Association would approve.

SUBJECT INDEX OF ALL PROCEEDINGS

This year also seemed the proper time to publish a comprehensive subject index of the literature on hospital construction, administration and operation as brought out by the twenty-five Annual Conferences of the Association. This literature is the most valuable on these subjects existing and is not properly used nor appreciated because of the lack of a subject index to make it readily available for reference. The work of preparing such an index was begun with the publication of the Proceedings of the Twenty-fourth Annual Conference and has continued throughout the year. A few of the individual volumes were adequately subject indexed, but many contained only lists of the titles of the papers. It was necessary to read all this material and write a subject index for each of these volumes before the combining of all into one index. This combined subject index for the twenty-five years will be published with the Proceedings of this Conference.

OFFICE ACTIVITIES

The foregoing activities did not take up all the time and attention of the office. Sixteen hundred dollars was expended for postage—exclusive of the cost of mailing the Proceedings—which

sum purchased eighty thousand two-cent stamps. This means an average of sixteen communications for every hospital of twenty-five or more beds in the United States and Canada. Fifty-three thousand letterheads were used by the Secretary's office alone—an average of over ten letters for every hospital of twenty-five or more beds in Canada and the United States. This does not include the identical letterheads printed as a part of circular matter.

Ten thousand copies of News Bulletin No. 3, which was devoted entirely to stating the preliminary program and plans for this Conference, were placed in the field. Three thousand copies of any communication are now required for both the institutional and personal members and the few organizations on the mailing list.

The mechanical work of getting out these many letters, bulletins and other communications, even after the manuscript thereof is prepared, is heavy and the cost correspondingly large. This is, however, one of the essential activities of the Association. All of the dues of the Associate and the greater part of the dues of the Active Personal Members are returned directly through first cost of the Proceedings, bulletins and essential communications sent each member. But this is as it should be.

The routine work of the office practically doubled in the past year, requiring that the office force be correspondingly increased and many articles of equipment purchased.

STANDARDIZATION OF ALL PUBLICATIONS

The size and form of the various publications and bulletins of the Association have varied much. There has been no established policy. The increase in the number of these publications made it advisable to adopt a uniform size to facilitate filing. The Proceedings of last year were published in the larger size of type and paper page used in the earlier numbers but a thinner paper was used to reduce bulk. All recent technical bulletins have been published in this size. With No. 3 of this year the quarterly News Bulletin adopted this same size. This leaves only the "Daily Bulletin" of the Annual Conference to be published in an odd size. If this standard size proves satisfactory to the Association, it will continue to be used, as it has many advantages.

THE EXPOSITION

The Exposition in the form attained and with all accomplished plans is before you. Judge it for yourself. But it is proper that you should know that the officers of the Exhibitors' Association have worked hard to make this Exposition what it is. They as-

sumed responsibility for the development of the Model Kitchen. Through their efforts definite policies have been established. It is agreed that there shall be no pressing for sales and that any booth may be visited by any delegate without any thought of purchase or commitment. There has been careful study and planning to make every booth present a maximum of interest and educational value—and not to be merely a market place.

The sincere acceptance of this policy is reflected in the personnel present with the exhibits. The sales managers of many—probably a majority—of the companies have taken advantage of this opportunity to discuss their products critically and directly with the users thereof in the hospital field, and are present. With most of the exhibits of mechanical equipment, technical experts have been sent to discuss the practical requirements and to give expert service to those using their equipment or desiring information. These men can give you technical information and practical suggestions far better than you can ordinarily secure. They are the factory experts.

MEMBERSHIP IN THE ASSOCIATION

The membership in the Association is growing steadily but to your Executive Secretary the rate seems too slow. Every activity, every publication, brings as a direct result a few more members. A service rendered often ends in established membership and a few members are secured directly by correspondence from the office. This year there has been one most welcome change. We have received a considerable number of voluntary inquiries as to institutional membership from hospitals widely scattered and without a direct cause for the communication becoming apparent. Most of these inquiries have resulted in established membership. Several of these inquiries were from countries other than Canada and the United States and it was these that led the trustees to suggest changes in the Constitution which would make these hospitals eligible to a special form of Institutional Membership.

But how long must it be before the hospitals of Canada and the United States recognize generally that the American Hospital Association is simply an Association of themselves and for themselves; recognize that it is merely the usual form of organization of the individual plants of an industry and their operating personnel into an effective central bureau of service and information based on common effort and the prompt exchange of ideas for the benefit of each; recognize that their individual and pressing problems are all common problems varying in other hospitals only in degree and that a common study can help all alike with the cost

thereof distributed? When will all realize that participation in the common support of the Association can bring to them—at a price within their reach and with their full share of the cost paid—service, studies, concrete facts and figures and the thoughtful opinions of many, such as the individual hospital could never secure? When will the direct value of these Conferences to hospitals be generally recognized and the attendance correspond therewith?

Other kinds of plants and industries—far simpler in every way and with fewer problems—have learned all this. These accept the fact that the same personnel brought to common contact through a central bureau or association will produce far more than when working as scattered units, and at a fraction of the cost. Perhaps a man or woman working or thinking in isolation without contact with or comments from other workers could produce as much as when working with others, but they won't. The stimulation from contentions, comparisons and competition is lacking.

Why is it that a hospital—often with inexperienced executives such as most meager salaries can secure—is so likely to drift into a policy of local isolation and will attempt to meet all their technical problems with their own scant resources? These hospitals laboriously work out or work at problems that some one has already satisfactorily solved with a method now much used, but they have not heard of it. Why is it that some trustees will expect their superintendent to keep up-to-date and informed concerning the detail of hospital operation without providing the small sums required for membership and participation of the hospital in the Association and its activities, or for traveling expenses to attend meetings of any kind, or even for a magazine subscription? Of course, they don't have—or at any rate don't long keep—an up-to-date superintendent on this policy or have executive decisions based on knowledge common in the hospital field, but they seem to think they do. Hospital superintendents are human with human limitations and the proper administration of a hospital with its intricate relations to the medical, nursing, public health, social and economic fields, can not come through intuition. It is a highly technical job.

It is true that hospitals are even yet often interpreted as a local charity instead of an institution to provide expert technical service and an essential industry. But can this now, or could this ever, have justified local isolation and ignorance of the work and progress in other hospitals?

The trustees of every hospital must answer these and similar questions for themselves, and their attitude thereto is made known

through the operating efficiency of their institution and its resulting service to patients.

PRESIDENT BACON: We will next have the report of the Membership Committee.

REV. H. L. FRITSCHER, D.D., Chairman: The total membership of the American Hospital Association on the first of October was 1,705. Today, to bring it up to date, it is 1,727. We have introduced a new feature in our report, by giving a distribution of members according to the geographical subdivisions of the United States and Canada. You will find the institutional and personal memberships by states. According to this the largest number of members is to be found in the State of New York, with 264 members. Next comes Pennsylvania with 246, and third Ohio with 160, and then Massachusetts with 152. For further data I refer you again to the report as printed:

REPORT OF THE MEMBERSHIP COMMITTEE

The Membership Committee has received and either approved or disapproved all applications for Institutional Membership and all applications for Personal Membership except those received through the Geographical Sections.

A report showing the changes in the totals of the various classes of members is sent each month from the office of the Secretary to the members of the Membership Committee. This has been done for the past two years and from time to time there have been changes in the form of this report—all designed to make the figures clearer. The form now in use has been followed in the drafting of this annual report although it differs from the form used in previous annual reports. This new form is not only clearer and simpler but corresponds with the plan of publication of the membership lists to be used in the printed proceedings of this Conference.

The custom of giving in this report the figures as of September first, has been followed although later figures are available. This is done to make the report cover exactly twelve months as others have done. The figures follow:

MEMBERSHIP IN THE AMERICAN HOSPITAL ASSOCIATION

INSTITUTIONAL ACTIVE

In good standing September 1, 1922.....	466
New members accepted during year.....	86
Suspended members reinstated.....	1
<i>Less</i> resigned (8); suspended for various reasons (4)...	<u>12</u>

AMERICAN HOSPITAL ASSOCIATION

Total number in good standing September 1, 1923...	541
A net increase for the year of 75 or 16 per cent.	

INSTITUTIONAL ASSOCIATE

in good standing September 1, 1922.....	7
New members accepted during year.....	5
Less resigned (1).....	1
<hr/>	
Total number in good standing September 1, 1923...	11
A net increase for the year of 4 or 57 per cent.	
Total number of Institutional Members of both classes September 1, 1923.....	552
A net increase for the year of 17 per cent.	

PERSONAL ACTIVE

In good standing September 1, 1922.....	1282
New members accepted through the Membership Committee	78
New members accepted through the Geographical Sections	137
Suspended members reinstated.....	4
Transferred from Associate Membership.....	9
Less resigned (49); suspended for non-payment of dues (12); deceased (15).....	76
Transferred to Associate Membership.....	6
<hr/>	
Total number in good standing September 1, 1923...	1428
A net increase for the year of 146 or 11 per cent.	

PERSONAL ASSOCIATE

In good standing September 1, 1922.....	251
New members accepted through the Membership Committee	26
New members accepted through the Geographical Sections	16
Transferred from Active Membership.....	6
Less resigned (12); suspended for non-payment of dues (10); deceased (1).....	23
Transferred to Active Membership.....	9
<hr/>	
Total number in good standing September 1, 1923...	267
A net increase for the year of 16 or 6 per cent.	
Honorary Members (no change during the year).....	10
Total number of Personal Members of all classes Sep- tember 1, 1923.....	1705
A net increase for the year of 162 or 11 per cent.	

AMERICAN HOSPITAL ASSOCIATION

LIFE MEMBERSHIP FUND

Active

Life Membership Certificates previously reported.....	26
Members completing Life Payment in year.....	12
Mr. P. W. Behrens, Supt. Toledo Hospital, Toledo, O.	
Mr. Wilton Moore Lockwood, Trustee, Paterson General Hospital, Paterson, N. J.	
Dr. Malcolm T. MacEachern, Associate Director, American College of Surgeons, Chicago, Ill.	
Mr. W. T. Barbour, Trustee, Grace Hospital, Detroit, Mich.	
Captain H. H. Warfield, Supt., Carson C. Peck Memorial Hospital, Brooklyn, N. Y.	
Miss Hanna Malmgren, Supt., Manchester Memorial Hospital, South Manchester, Conn.	
Miss Mary A. Montague, Asst. Supt., Broad Street Hospital, New York City.	
Mr. Alfred C. Meyer, President, Michael Reese Hospital, Chicago, Ill.	
Mr. E. S. Gilmore, Supt., Wesley Memorial Hospital, Chicago, Ill.	
Dr. R. W. Corwin, Supt., Minnequa Hospital, Pueblo, Colo.	
Monsgr. Peter Masson, Director Sacred Heart Hospital, Allentown, Pa.	
Dr. W. L. Babcock, Supt., Grace Hospital, Detroit, Mich.	
Present total of Active Life Members.....	38

Associate

Life Membership previously reported.....	6
Members completing Life Payment in year.....	1
Mr. Noyes L. Avery, Chairman Executive Committee, Blodgett Memorial Hospital, Grand Rapids, Mich.	
Present total of Associate Life Members.....	7
Present total of Life Members of both classes.....	45
It is hoped that this year a greater number of Members will complete the payment for Life Certificates.	

AMERICAN HOSPITAL ASSOCIATION

GEOGRAPHICAL DISTRIBUTION OF MEMBERS

October 11, 1923

	INSTITUTIONAL			PERSONAL			LIFE CERTIFICATES		
	Active	Associate	Total	Active	Associate	Honorary	Total	Active	Associate
Alabama	1	..	1	8	2	..	10	..	..
Alaska .....	..	..	..	1	..	..	1	..	..
Arizona .....	..	..	..	1	..	..	1	..	..
Arkansas	1	..	1	2	..	..	2	..	..
California	18	..	18	28	5	..	33	..	..
Colorado	3	..	3	19	1	..	20	1	..
Connecticut	12	..	12	31	8	..	39	1	..
Delaware	1	..	1	4	..	..	4	..	..
D. of C.	1	..	1	8	3	..	11	..	..
Florida	1	..	1	7	..	..	7	..	..
Georgia	5	1	6	5	3	..	8	..	..
Idaho	1	..	1	3	..	..	3	..	..
Illinois	39	5	44	72	26	..	98	7	2
Indiana	12	1	13	40	2	..	42	..	..
Iowa	9	..	9	19	..	..	19	1	..
Kansas	11	..	11	14	1	..	15	..	..
Kentucky	3	..	3	7	1	..	8	..	..
Louisiana	6	..	6	9	2	..	11	..	..
Maine	3	..	3	14	1	..	15	..	..
Maryland	8	..	8	16	3	..	19	..	..
Massachusetts ...	42	..	42	127	25	..	152	2	1
Michigan	23	..	23	65	19	2	86	5	1
Minnesota	16	..	16	36	11	..	47	1	..
Mississippi	1	..	1	3	..	..	3	..	..
Missouri	15	..	15	50	2	..	52	2	..
Montana	2	..	2	2	1	..	3	..	..
Nebraska	2	..	2	6	..	..	6	..	..
Nevada .....	..	..	..	1	1	..	2	..	..
New Hampshire...	6	..	6	8	..	..	8	..	..
New Jersey.....	15	..	15	46	7	..	53	1	..
New Mexico .....	..	..	..	1	..	..	1	..	..
New York	80	2	82	202	58	4	264	8	1
North Carolina...	6	..	6	12	5	..	17	..	..
North Dakota....	1	..	1	6	1	..	7	..	..
Ohio	55	..	55	139	21	..	160	3	..
Oklahoma	4	..	4	4	1	..	5
Oregon	1	..	1	1	1	..	2
Pennsylvania	64	2	66	223	21	2	246	4	2
Philippine I.	1	..	1	1	1

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Rhode Island	2	..	2	16	2	..	18
South Carolina ..	4	..	4	9	9
South Dakota ...	2	..	2	4	4
Tennessee	6	..	6	11	11
Texas	11	..	11	12	3	..	15	..	..
Utah	5	..	5	4	..	..	4	..	..
Vermont	3	..	3	8	..	..	8	1	..
Virginia	3	..	3	9	2	..	11	..	..
Washington	5	..	5	10	..	..	10	..	..
West Virginia ...	5	..	5	20	2	..	22	..	..
Wisconsin	21	..	21	50	3	..	53	..	..
Wyoming	2	..	2	2	..	..	2	..	..
Canada	14	..	14	46	10	1	57	1	..
Foreign	1	1	2	5	4	1	10	..	..
Totals	553	12	565	1447	258	10	1715	38	7

Respectively submitted,

Rev. H. L. Fritschel, *Chairman.*

Miss Margaret M. Cumming

Sister M. Geraldine.

THIRD REPORT OF COMMITTEE ON FORMS

Numerous communications received at the Executive Office indicate that the number of hospitals adopting and using the methods outlined by this committee, and approved by the Association during the 1921 convention, is steadily increasing. No alterations or additions to that report are recommended at this time. Suggestions for changes, especially such as may simplify methods of recordkeeping, will be welcomed.

In response to a series of questions submitted by the President of the Boston Lying-In Hospital, and at the request of the home office, the following answers relating to "Maternity Service" statistics were prepared. (These were published in "News Bulletin No. 2—1923"—and are now presented to the Convention for its consideration and approval.)

1. Where do you draw the line between nonviability and viability?

The answer to this question may depend upon the location of the hospital. Numerous health departments have issued regulations governing the situation. These rulings vary, placing viability at from five to seven months uterogestation. If no law or ruling is in effect, then the following principle should govern: A child born so immature that no possibility for independent life

exists should be classed as nonviable. The obstetrician should make the decision.

2. Where do you draw the line between a stillbirth and a birth and death?

Here again rules and laws of health boards usually govern. Under the laws of Ohio and a number of other states, a stillbirth must be reported as a birth and death. The law would seem to be a good one to follow in all practice. A child born dead after five months uterogestation is regarded as a stillbirth under the Ohio laws; previous to five months it is regarded as nonviable and is not reported as a birth or stillbirth but classed as an abortion or miscarriage only.

3. If we are to count only the births of viable babies, does the rule of counting babies as patients still hold when a baby, nonviable as to term of pregnancy, is born living and then dies?

If a nonviable child, as to term of pregnancy, is born living and then dies, it should be reported as a birth and death. In such instances, the child would be counted as a patient until death ensues. (See Section C under question 5.)

4. Regarding Principle 3 of the Bulletin—

Since babies are to count as patients, what shall be their classification as to payment?

In the Boston Lying-In Hospital our charge for care covers both mother and baby, and no change in the rate is made if the baby is stillborn or dies. It is therefore necessary for us to decide whether to give the babies the status of the mothers as to payment, or to count them as free.

The practice concerning the classification of patient days' service rendered newborn infants in maternity hospitals or wards seems to vary considerably. In most instances, however, the charge for service covers service rendered both mother and child, or mother alone, if the child does not live. This being true, it is evident that a charge for the care of the infant is made in the rate quoted when the expectant mother is admitted. It would therefore be wrong to class the days of service rendered the infant as free days. Such classification would wrongfully increase the total of free days' service rendered by the hospital, and, especially in the case of an institution devoted solely to maternity work, lead to false impressions concerning the amount of gratis service rendered by the hospital.

It would therefore seem best to classify the days of service rendered the newborn infants in the same way as are those rendered the mother, i. e., as "free," if no charge is made the mother; as "part-pay," if she is a "part-pay" patient, and as "pay" if she is paying full cost or more.

5. Regarding Principle 4 of the Bulletin:

(a) Having determined as above what we mean by a stillbirth, shall a stillbirth count as a birth under (c)?

If we subscribe to the principle enumerated above, then a stillbirth will count as a birth.

As explained above, this must be the case where the law specifically requires.

(b) Shall a stillbirth count as a discharge under (d) and if so, how shall it be classified?

Such case will be classified as a death and will be so recorded under (d) of the formula given in the report of the Committee on Records. In annual statistical tables they should be compiled neither as births or deaths, but separately as stillbirths.

(c) Shall a stillbirth count as a day's treatment in the total?

If the formula cited in our report is followed, the case will be added to the census (as a birth) and deducted therefrom (as a death) within the same day and consequently "no patient day" will be added.

The paragraph following the cited formula which provided for adding the number of patients admitted and discharged within the same day would naturally not apply to "stillbirths."

"CURRENT FINANCIAL REPORTS"

The number of institutions operating upon the basis of an annual budget continues to increase as the value of such a system of operation gains recognition. This method of financial control requires analysis of past performance and experience, together with diligent watchfulness of current expenditure and the careful preparation of programs for future operation and development. The funds must be distributed according to the varying requirements of the periods into which the year is divided. Experience in each instance will indicate the best way in which the year may be divided. Sub-division into monthly periods will, in most instances, be found to be the best for purposes of comparison.

The institution's financial needs will naturally vary from month to month, because of the irregularity of the hospital's activities. A detailed review of past and present financial experience and a careful study of the future program is therefore necessary in order to properly prorate the funds available, so as to anticipate the expense of operation and maintenance.

To obtain the best results, it is imperative that financial reports be submitted promptly at the close of the month or

other calendar subdivision. Unless the hospital's records are kept so as to permit of prompt financial statements they lose much of their value, even though they be entirely free of error. The board and the administrator are deprived of one of the greatest aids to economical and efficient management if they are not furnished promptly at the close of the period with accurate and detailed financial statements. Such records should show not only the facts concerning the finances during the period closed, but also a comparison with that of the same period during the preceding year or years.

The publication in annual reports of the certificates of certified public accountants to the effect that the hospital's accounts have been audited, indicates that many institutions recognize the importance of a disinterested and unbiased check of their financial records. While an annual audit may accomplish the primary object of such an examination, the accumulation of financial data is often such that the audit is not thorough or the final report is necessarily so long delayed that it has lost most of its value, unless some large discrepancy is exposed.

In order to obtain prompt financial statements and at the same time be assured of the accuracy of their records, some of our larger institutions are employing the "quarterly audit" system. At frequent and regular intervals audits of the records are made, and at the close of stated periods the auditor is prepared not only to submit financial statements prepared as the result of a careful and detailed check, but is in a position to make recommendations and give advice to the board, at a time when they may act to curtail or extend the activities of the institution during all or part of the remaining year. By this method of auditing the accountant is practically in continuous touch with the affairs of the hospital. He becomes intimately informed concerning the various institutional transactions and practices, and the value of his work is greatly enhanced.

The cost of obtaining a "quarterly" audit may be out of proportion to its value for the smaller hospital, though auditing firms usually charge according to the amount of labor and time involved and therefore the cost to the smaller hospital should be in proportion to that of the larger institution. In any event, it is practical and possible for every hospital to employ an efficient clerk or bookkeeper who can prepare accurate statements and so keep the records that such statements can be submitted promptly at the close of any stated period, so that they may in fact become a working basis for the administrator.

Your Committee believes that this is a subject worthy of most serious consideration and that adoption of this method of

auditing accounts will enable hospitals to obtain better control of their finances, and therefore submits it for your consideration.

Respectfully submitted,

A. C. Bachmeyer, M.D., Chairman,
F. E. Chapman,
John F. Bresnahan, M.D.

REPORT OF THE COMMITTEE ON THE RELATION OF
STATE AND MUNICIPAL HEALTH DEPARTMENTS
AND OTHER STATE AND CITY DEPARTMENTS
TO PRIVATE HOSPITALS AND
DISPENSARIES

This report presents the results of an inquiry made of state and municipal health departments and other departments of state and city governments concerning any supervisory authority they may exercise over private hospitals, dispensaries and other medical institutions. Letters of inquiry were sent to all state boards of health and to all municipal health departments in cities of 50,000 or over population. Replies were received from all the state boards and from the health departments of eighty-nine cities. In some instances the replies received indicated some measure of control by other state or municipal governing bodies. In such cases further information was sought. But in general no attempt was made to follow up other relationships of the state or city to hospitals and dispensaries than those developed through health departments, except in those cases in which supervisory functions commonly exercised by health departments were exercised by some other governmental body. Inquiry was made of some fifty hospital superintendents as a check on the information received from the health departments. Beyond this no corroboration of the information received was sought. A thorough study, including a perusal of the laws and ordinances of all the states and cities, was a larger task than the committee could undertake. All of the letters received from the various health departments together with other documents from which the data herein presented was obtained are on file in the office of the Association.

There are certain regulations of hospitals which exist in practically every state and city. Building is regulated in practically every municipality. The building laws naturally apply to hospitals and in the larger cities there are special chapters in the building codes which make specifications as to the location and construction of hospitals. Some states have building codes which contain spe-

cial regulations as to hospital construction. Ohio is a noteworthy example.

The laws, ordinances and health department rules pertaining to quarantine and to the reporting of communicable diseases to the health authorities are generally applicable to hospitals. There is likewise almost universal requirement of hospitals to report vital statistics to the proper authorities.

The relation of the hospital to nursing education, and, in those states in which the fifth or intern year is prerequisite to medical licensure, the relation of the hospital to intern training, is subject to state regulation. Practically every state has laws setting up standards which hospitals having training schools must meet in order to have their schools accredited. The qualifications of hospitals for approval for intern training in most states relate only to bed capacity. A notable exception to this is Pennsylvania, which has an elaborate set of specifications which hospitals must meet.

In many states certain hospitals are subsidized by the state or county in return for the expense incurred in caring for indigent patients. There are regulations in these states setting forth the conditions under which such subsidies will be granted. This matter of state subsidy of private hospitals is an important one, but it has not been considered by this committee, as at the time the committee began its work there was a special committee of the Association studying this question.

Beyond the regulations noted above, which exist in nearly all states and cities, only a few states have special regulations relating to general hospitals. The exceptions worthy of mention are specified below.

COLORADO

All hospitals and dispensaries are licensed by the State Board of Health and are subject to such rules and regulations as the state board may formulate. Hospitals are required to keep records of all patients, which records must at all times be open to inspection by agents of the State Board of Health. Other regulations have to do with matters of sanitation and protection of patients and the public against the spread of communicable diseases.

DISTRICT OF COLUMBIA

All private hospitals and asylums operating in the District of Columbia must be licensed by the Commissioners of the District. The health officer of the District is authorized to inspect all such institutions. Special regulations cover such matters as sanitation, the keeping of records, the appointment of a responsible staff, special facilities for the insane, drunken or delirious patients, etc.

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NEW YORK

The only hospitals subject to state regulation are those receiving aid from public funds, but since this obtains in the case of so many hospitals the regulations may well be noted. The State Board of Charities is empowered by law to make rules and regulations for hospitals caring for indigent patients for whose care they are to be compensated out of public funds. Certain specified records must be kept and reports made to the state board at regular intervals. Such hospitals are subject to inspection by the State Board of Charities.

OHIO

Ohio laws require that all hospitals and dispensaries, both public and private, register with and report annually to the State Department of Health.

OREGON

All hospitals in the State are licensed or certified by the State Board of Health and are subject to its inspection. The filing of annual reports is required. There are other regulations having to do with sanitation.

Regulation of certain types of special hospitals occurs in some of the states.

LYING-IN HOSPITALS

Lying-In Hospitals, because of the special need for safeguarding the interests of babies born out of wedlock, are subjected in many states to quite rigid regulation. The following states have laws governing institutions of this type: Alabama, California, Idaho, Illinois, Indiana, Kansas, Maine, Massachusetts, Missouri, Nebraska, North Dakota, Ohio, Oregon, Texas, Utah, Virginia, West Virginia and Wisconsin.

The laws in these various states show marked uniformity. In the main, in addition to the usual sanitary requirements, they provide for the licensing and inspection of all lying-in hospitals by some state department and require adequate identification records of mothers and infants, proper care at the time of confinement, and safeguard the placing out and adoption of infants born in such hospitals. The method of enforcing such laws is set forth in the following quotation from a letter from the Secretary of the State Board of Charities and Corrections of California:

"Our procedure at the present time is to grant license upon application after assuring ourselves by investigation that our standards have been met. In many communities we have the coopera-

tion of the local health authorities in making our investigations. In all cases we require the endorsement of the local board of health or health officer. Our license once issued is active until relinquished or revoked. In order to keep in touch with the disposition of babies born in the hospitals under our supervision, we require these hospitals to file a semi-annual report with this board.

The Maternity Hospital Law is so worked as to include not only maternity homes and hospitals but all hospitals conducting maternity departments. When the state board began its work of licensing maternity homes and maternity departments of general hospitals, it discovered that hospitals were under no state supervision. Therefore, while its primary interest was in the disposition of the children, it was found impossible to grant license until it assured itself that the sanitation, equipment, and care provided in each case was of such a standard as to warrant state endorsement."

In most of the states having such laws, they apply as well to the maternity departments of general hospitals. In some states the state department charged with the regulation of lying-in hospitals bases all decisions as to licensing such institutions on the recommendations of local health departments. A few cities regulate lying-in hospitals, having ordinances placing their control in the local health department. Among such cities are Baltimore, Buffalo and Philadelphia.

TUBERCULOSIS SANATORIA

Most states have laws which authorize counties to levy taxes for the establishment and maintenance of public tuberculosis sanatoria. In a few states the regulations governing these public institutions are applicable as well to private institutions for the care of the tuberculous. California may be cited as an example.

PRIVATE HOSPITALS FOR THE INSANE

New Hampshire, Pennsylvania and Vermont require the licensing of private hospitals and asylums for persons of unsound mind, and, in the case of New Hampshire, of similar institutions for the "treatment of specific diseases."

REGULATION OF DISPENSARIES BY STATE

Two states, Massachusetts and New York, have laws providing for the regulation of dispensaries. Massachusetts empowers its department of public health to supervise and license dispensaries of a general character. The department is authorized to make rules and regulations for the operation of dispensaries and to visit and inspect such institutions at any time. In New York the regu-

lation of dispensaries and hospital out-patient departments is a function of the State Board of Charities. The powers and duties of this board include the making of rules for the governing of dispensaries and the licensing and inspection of such institutions. The rules promulgated by this board cover such matters as records, staff attendance, pharmacy, sanitation and the like.

REGULATION OF HOSPITALS AND DISPENSARIES BY CITIES

A few cities have ordinances or other provisions for the regulation of hospitals and dispensaries. The gist of these regulations is given below:

CHICAGO

Chicago has an ordinance under which hospitals are subject to certain regulation by the department of health. The principal provisions of this ordinance are given below. A license is required of all hospitals. Licenses must be renewed annually. The annual license fee is fifty dollars. Those hospitals which make no charge for service are exempted from paying the fee. Application for license must state the location or proposed location of the hospital, the purpose for which it is maintained, its accommodations for patients, the nature and kind of treatment given and the names and addresses of its chief physicians and surgeons. All buildings must comply with the requirements of the department of buildings and of the bureau of fire prevention and safety. The health commissioner must make adequate inquiry upon the presentation of each application and recommend to the mayor whether a license should or should not be issued.

There are other provisions of the ordinance dealing with sanitation, frontage consents, cases of contagious diseases, etc. The section dealing with records reads as follows:

"Each and every hospital shall keep a complete record of all patients admitted to the institution, giving name, age and social condition of each patient (except in case of illegitimate maternity, for records of which there is special provision), and the disease or injury for which such patient is being treated, together with any complications which may arise from or during such treatment, the date of admission and discharge of such patient from such hospital and a record showing the date of birth, sex and disposition of every child born in such hospital. In the case of patients admitted on account of injuries, insanity, drug addiction or contagious diseases, the hospital record shall show by whom and in whose ambulance or conveyance such patient was brought to the hospital.

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Such records shall be open at all times to the inspection of the commissioner of health or his duly authorized representative."

Certain prescribed monthly reports are required.

DETROIT

The charter of the City of Detroit, in referring to the department of health, contains the following provisions: "The board shall have the power to demand reports and information from all public dispensaries, hospitals, asylums, infirmaries, prisons, schools or other public institutions relating to the safety of life and promotion of health, which in its opinion may be required for the better discharge of its duties, and it shall be the duty of all officers, managers, superintendents or other persons connected with any such institution, when so called on, promptly to give such information and make such reports as the board may require."

MINNEAPOLIS

Hospital licenses are issued by the city clerk upon application made to the City Council. These applications are referred to the commissioner of health for his endorsement as to the sanitary condition of the buildings. A license fee of ten dollars (\$10.00) is required for each hospital, payable annually.

NEW YORK CITY

The sanitary code of the City of New York provides that any person, persons or corporation desiring to conduct a hospital must first obtain a permit from the city board of health and must observe the rules and regulations of this board. In addition to the usual sanitary requirements, these regulations specify that a responsible officer of the hospital shall be on duty at all times and that certain information concerning each patient shall be kept. Such records shall include adequate identification information concerning each patient, the name of the physician attending him, diagnoses, nature of operation if one is performed, termination of case. All records of patients shall at all times be open to inspection by the department of health.

ST. LOUIS

The City of St. Louis has an ordinance regulating hospitals and other medical institutions. It requires that permits for the establishment and operation of such institutions be obtained from the board of public service. The application for the permit must contain the names and addresses of all persons who are to manage and control the hospital and the names and addresses of all members

of the staff, detailed information as to the building and the maximum number of patients to be accommodated. The application must be accompanied by written statements from each member of the staff and from each person charged with administrative responsibility to the effect that he or she will serve the hospital as specified by the applicant for the permit. The permit is granted only on recommendation of the health commissioner after detailed investigation. If a permit is granted all changes in the staff or executive personnel of the hospital must be reported to the Health Commissioner. Each hospital is required to have a resident physician. The ordinance authorizes the division of health to make rules and regulations for the operation of medical institutions.

ST. PAUL

The bureau of health has sanitary regulation supervision over all institutions in the city. Hospitals are licensed by the City Council. Applications for such licenses are usually referred to the bureau of health before action is taken by the council.

REGULATION IN OTHER CITIES

Other cities known to require licenses or permits for the operation of hospitals are Birmingham, Alabama; Atlanta, Georgia; Macon, Georgia; New Orleans, La.; Portland, Oregon; and Spokane, Washington.

REGULATION OF DISPENSARIES BY CITIES

Chicago is the only city reporting any regulation of dispensaries which is worthy of note. It has an ordinance regulating the establishment and operation of such institutions. Annual license is required of all dispensaries. The application for license must specify the location of the dispensary, the purpose for which it operates, the accommodations it contains, the nature and kind of treatment given and the names and addresses of the members of its staff. There is an annual license fee of \$25.00. In addition to the usual sanitary requirements, the ordinance provides that records shall be kept of all patients, giving the dates of treatment, diagnosis and identification information. Such records shall at all times be open to inspection by the department of health. In addition to reporting all cases of communicable diseases diagnosed, dispensaries are required to report monthly the number of new and old patients treated, classified as to sex and age. An annual report is also required. Inspection by the health department is provided for and the commissioner of health is empowered to recommend to the

mayor the revocation of licenses for violation of the provisions of the ordinance.

GENERAL CONCLUSIONS

The information obtained as a result of the inquiry made by the committee is largely negative. Beyond the setting up of certain minimum standards as to the structure and sanitation of hospital buildings, the requirement of adequate safeguards against the spread of communicable diseases and the reporting of births and deaths, there is little regulation of hospitals by either state or city health authorities. In those states and cities in which there are laws and ordinances providing for the licensing, inspection and other regulation of hospitals and dispensaries, there are practically no requirements which go beyond what any good hospital provides for the adequate care and protection of its patients.

Respectfully submitted,

John E. Ranson, *Chairman*,
Herman Smith, M.D.,
J. J. Weber,
E. T. Olson, M.D.

SECOND REPORT OF THE COMMITTEE ON FLOORS

To Members of the American Hospital Association:

In continuing the work of the Committee on Floors the board of trustees were of the opinion that a committee representing a more diversified point of view was desirable, and accordingly for the year's work appointed the following:

Mr. Frank E. Chapman, Cleveland, O., Chairman; Dr. Charles H. Young, Syracuse, N. Y., Dr. Thomas Howell, New York City (these three are hospital administrators), Mr. Charles F. Owsley, Architect, Youngstown, O., Mr. J. W. McBurney, Engineer of Tests, Board of Education, Cleveland, O.

A general invitation was extended to flooring manufacturers to submit samples for test and such descriptive data as they deemed pertinent.

Your committee met in Cleveland and again in Syracuse, developing plans of procedure and specific technique of tests.

At the expiration of the allotted time it was found that neither in number nor in novelty was the response sufficient to warrant the labor and expense of another test, and accordingly your committee has no complete report to make this year.

A manufacturer of "battleship" linoleum, whose flooring was

represented in the test of last year, objected to the findings on absorbency, stating that the degree of absorbency following a 24-hour immersion of his product in water was excessive, and that the wide differences shown as between comparable grades of the products of different manufacturers were not justified.

The tests made last year were surrounded by many cross checks. It must be recognized that all tests are subject to human interpretation, but it is believed that the results of the tests as given were and are correct. Nevertheless, the report having been challenged, the board of trustees felt it important to investigate as to its accuracy, for it is the intention of this association that all information published by it shall be as dependable as is humanly possible. Therefore, at the request of the trustees, your committee has repeated its examinations of quarter-inch "battleship" linoleum, using different samples, but samples of the same products as were reported upon last year. The samples were submitted for test to an independent and impartial public testing laboratory, with the following results:

Sample No.	Mark	Per cent increase 24 hours
1	Manufacturer X—Green	9.8
2	Green	6.4
3	Brown	6.1
4	Brown	5.6
5	Brown	6.6
6	Manufacturer Y—Brown	5.9
7	Brown	6.8
8	Brown	6.7
9	Brown	6.2
10	Brown	6.3
11	Manufacturer Z—Green	8.6
12	Brown	7.5
13	Green	7.7
14	Gray	5.9
15	Brown	5.6

The symbols "X," "Y" and "Z" indicate the three different manufacturers of "battleship" linoleum whose products were reported on last year, and the numerals indicate the different samples of the product of each manufacturer.

From these results it will be seen that not only is there a variance as between products of manufacturers of the same general type, but also a considerable variance as between products of the same general type of the same manufacturer.

In a consideration of the relative value of any laboratory finding it must be recognized that the evaluation of any one quality of a given floor is not necessarily of great moment. It is the composite value that is of interest.

The reception of the report of last year is but indicative of the broad interest in the question of floors, and it is to be hoped that the American Hospital Association can continue to develop more and more specific information on the subject.

This report has been approved by the trustees, who have expressed their gratification that no substantial error has been disclosed in the facts given by the report of your committee.

Respectfully submitted,

F. E. CHAPMAN, Chairman
CHAS. H. YOUNG, M. D.
C. F. OWSLEY
THOMAS HOWELL, M. D.
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REPORT OF THE COMMITTEE ON BUILDINGS—CONSTRUCTION, EQUIPMENT AND MAINTENANCE.

1. PREVALENT "OPINIONS, PRACTICES AND TENDENCIES" IN HOSPITAL CONSTRUCTION.

For a general account of "opinions, practices and tendencies" prevalent in hospital design and construction, the Committee directs attention to its report for the year 1922, since printed by the Association as Bulletin No. 48. The substance of that report is still valid, no changes of importance having taken place during the past year in respect to the practices and tendencies therein recorded, so far as the Committee has been able to ascertain. The following items, however, may appropriately be added to the original list.

A method, well known in the construction of research laboratories and teaching laboratories connected with medical schools, is one in which "all service connections are carried in either the outer or inner wall of the building, leaving the partitions free, and all partitions are set on top of the finished concrete floor and may be moved without patching the floor." The utilization of this method makes it possible to shift partitions at a minimum of expense for rearrangement, and without costly structural alterations. In the planning of a university hospital in the West, the use of the "same arrangement of partitions of service rooms

and connections has been carried out in the out-patient building, and wherever indicated in the administration building. In the hospital, the only fixed portion of the ward floors is the service room unit; elsewhere the use of partitions, as in the medical school, makes it possible to alter inexpensively the present arrangement at any future time, either in the direction of more single rooms, or more two and three-bed wards, as experience may indicate. Here as elsewhere all service connections are carried in the outer or inner walls."

A member of the Committee expresses the opinion that "an improvement in the methods of lighting in operating rooms has been brought about during the past year, through the use of numerous daylight lamps, which is a real advance in that these lamps blend perfectly with daylight and can be used satisfactorily in this manner or completely excluding daylight."

Another member reports satisfactory results from the installation of an individual refrigerating unit for each floor of a private patients' building. The refrigerant employed is sulphur dioxide, and each unit consists of a food refrigerator combined with a small ice making machine.

A new sound-absorbing material which has been placed on the market is described as being made of "pure bagasse fibre (non-capillary)." This material comes in slabs one inch thick, which are applied to the ceiling surface with the joints either tightly abutted or tuck-pointed. Tests indicate that this material has a satisfactory coefficient of absorption. This new material was designed as a substitute for certain forms of fibre acoustical and quieting felts which, though durable, were not altogether satisfactory because of the necessity of covering and concealing them with fibre membrane suitable for decoration in the same manner as plaster. The new material presents a surface which is described by architects as unusually good for purposes of decoration.

Many hospitals find themselves under the necessity of stringently reducing the scope of proposed building operations, owing to the high cost of construction. Often the choice lies between a reduction in the bed capacity of the proposed hospital, and the elimination of important service features. A certain difference between the two methods here suggested is to be noted, for the temporary elimination of an entire ward wing with a corresponding reduction in hospital capacity leaves the working center of the hospital intact, and the temporarily omitted wards can be added whenever the money is forthcoming. Contrariwise, sharp cuts all along the line in the service sections of a hospital cripples the institution forever.

A new type of hospital has recently been widely advertised, namely, the "hotel-hospital," a brief discussion of which is in order. We do not here refer to the hospital which, seeking to reassure the public as to the high character of its food service, or the luxuriousness of its furnishings, describes itself as a "hotel for the sick," but to a building actually designed for use as part hotel, part hospital. The motives that impel a community to establish a hospital can hardly be the same as those which prompt a group of investors to erect a huge building to be occupied as hotel and hospital combined. Where land is valuable, and in the face of some uncertainty as to the public demand for additional private hospital accommodations, or as to the ability of a selected group of physicians or surgeons to attract a sufficiently large number of patients to insure profitable returns on the capital required to erect a large building, one can understand the desire of investors to "play safe." If in a building of many stories the lower stories are equipped with hotel features, while essential hospital equipment is concentrated in the upper stories, the intermediate floors, containing for the most part bedrooms, baths and toilets, may be rented either to ordinary hotel guests or to patients, and the management is in a position to accommodate itself to the fluctuating demands for the two types of service. The response of the community will eventually determine whether a building so planned shall continue to be used as a hotel-hospital, or whether one of the two branches of the business shall be abandoned. The history of these ingenious commercial enterprises has yet to be written, but the further production of this composite type of building may be predicted, if the first examples of the type prove financially successful.

In the introduction to the previous report of this Committee attention was called to "a marked tendency toward concentration in planning, the object of which is to economize in the use of building material, and to facilitate medical, administrative, nursing, and domestic service." This tendency has been so sharply accentuated during the past year that attention should be directed to the dangers which lurk in its extreme application. Until recently one-story pavilions with connecting corridors were quite commonly employed, in the planning of smaller hospitals especially. For hospitals of this grade, compact two and three-story structures are now clearly preferred. The plans of hospitals of much larger size show the same tendency toward concentration, the same determination to eliminate unnecessary construction, to shorten all lines of interior communication, and to reduce the cost of personal service. But

when hospital buildings are planned for compactness alone, without regard to the equally valid demands of sun exposure, flexibility of design, natural ventilation, and facilities for outdoor treatment, it is time to sound a note of warning. The Committee views with misgiving the erection of concentrated hospital buildings with narrow courts enclosed on three sides, to which the sun has no access during the greater part of the year; it is not reconciled to the erection of solid, inelastic blocks resembling sky-scraper hotels; it questions the advisability of completely surrounding hospital corridors with wards and service rooms; it doubts the wisdom of the elimination of verandahs and balconies for the sake of economy, for this is a phase of "economy" that may retard recovery from disease.

The report of the Consultants on Hospitalization appointed by the Secretary of the Treasury to provide additional hospital facilities for ex-service men includes recommendations concerning governmental procedure in relation to hospital construction which strongly resemble suggestions made more than ten years ago, when on the initiative of the American Hospital Association a bill was introduced in Congress which called for the establishment of a national hospital bureau to be conducted in the interest of government hospital departments and of the nation at large, under the direction of the federal Public Health Service. The pending recommendations of the Consultants on Hospitalization which relate to hospital planning and construction follow:

"The hospital problem of the United States is of sufficient importance to the country to be a subject of continuous study in some office of the Federal Government.

"Such office should keep a record of not only the hospitals of all departments of the Government, but all state, municipal, and civil hospitals, and should have charge of the preparation of charts showing location, size, character, and use.

"Such office should be the center of advice on (a) location of hospitals; (b) expansion of existing hospitals; (c) *the preparation of standard plans for hospital buildings of different types, and for auxiliary buildings for power plants, kitchen, mess hall, storage, and recreation*; (d) standards of equipment; (e) standards of personnel numbers and quarters; (f) comparative costs of construction, maintenance, and operation.

"Standards for construction, equipment, and personnel should be changed from time to time as knowledge grows and conditions alter. If these were kept up to date they would be of great economic value, not only to the United States Govern-

ment but to the various state and municipal governments and to private institutions.

"Hospital construction should be combined with other federal construction and engineering work in one department.

"A federal board of hospitalization, similar to that now in existence, should be retained as a consultant body under budget provision."

II. BASIC PRINCIPLES IN HOSPITAL PLANNING.

At a time when building costs are extraordinarily high, the temptation is peculiarly strong to lower the standards of planning in the interest of an assumed economy. We are in the midst of such influences today, and the time seems opportune to direct attention to the underlying principles of hospital planning, namely, unity, diversity, facility of operation, flexibility, health and economy.

1. **Unity.**—A well-ordered hospital which is doing advanced and thorough work necessarily contains many clinical and other sub-divisions. The specialized character of these sub-divisions readily suggests the splitting of the hospital into many parts. Swayed by departmental interests, the architect is apt to be led away from the fundamental idea that the hospital is an organic unit which cannot function vigorously unless all of its departments function in harmony. The tendency of individual departments to detach themselves from the group should be combated in planning a general hospital, and the unity of the hospital preserved.

2. **Diversity.**—Certain principles of orientation, size, and arrangement are valid, respectively, for a particular department of a hospital, and these principles must be respected. If the architect considers separately each distinctive function and plans for it appropriately, a variety of structural outlines will emerge. If he then proceeds to build for each function, regardless of its place and relations in the general scheme, chaos will result. While the value of diverse forms must be recognized, the necessity of combining these forms into a practicable unit must not be overlooked. On the other hand, if a plan is adopted which is simple and which is selected on account of its correspondence to some particular hospital function, the resulting building may be satisfactory in part, but will not give satisfaction as a whole.

3. **Facility of Operation.**—The degree of ease with which a hospital can be operated depends on the location of the site, the disposition of entrances and exits, the grouping in space of interdependent departments, and the arrangement or placing of working equipment. The accessibility of the hospital to its

clientele is important, and in this connection patients, visitors to patients, the medical staff, and the nursing staff must be separately considered. Entrances and exits must be conveniently arranged for the groups just named, as well as for domestic employees, for goods, for waste and for the dead. Internal circulation, or transport and service lines, demand the closest study. For example, the wide separation of (a) the supply entrance from the kitchen, (b) the visitors' entrance from the elevators, (c) the visitors' elevators from the nurses' control stations, (d) the operating rooms from the surgical wards, (e) the out-patients' department from the admitting ward or from the radiographic department, (f) the ward utility room or the linen room from the center of the group of beds to which it is annexed, interferes with facility of operation. These few examples will perhaps suffice to show that an intimate knowledge of hospital service is indispensable in planning, and that the difficulty of applying such knowledge is especially great in the case of large and complex general hospitals, in which service lines cross each other many times.

4. Flexibility.—Experience has shown that the conditions which constitute the environment of the hospital are constantly undergoing modifications; social changes, community growth, and scientific discovery, create new demands which the hospital is called upon to satisfy. Healthy hospitals are growing hospitals, but their growth is not necessarily symmetrical. New discoveries are constantly opening up new lines of medical treatment which call for new space-consuming therapeutic apparatus. Nursing standards are forever advancing. Novel forms of record keeping are devised, and presently are regarded as indispensable. A hospital which begins as a medical boarding house is eventually called upon to participate in health education, in the clinical training of medical students, in post-graduate medical teaching, in scientific research. A sudden windfall enables the hospital to add a new or larger maternity department, an orthopedic department, a "tonsils clinic," a children's health center. Pressure is constant, both from within and without, and the hospital must be in a position to accommodate itself to every reasonable demand. An inflexible plan is a forerunner of trouble.

5. Health.—A hospital which is not rich in health values is a failure. Health values do not reside exclusively in smooth walls, smooth floors, and rounded inner corners; they are many and varied, including certain values which tend directly to the promotion of health, such as the proper orientation of wards, the sun exposure of balconies, grounds or flat roofs accessible to patients, effective ventilation, quiet bedrooms for night nurses,

advantageously placed dormitories and recreation rooms for the resident staff, proper sleeping quarters for other resident employees, a cheerful and tonic outlook; and also features which tend to the prevention of disease or the mitigation of suffering, such as receiving wards, quiet rooms, isolation wards, sterilizing equipment of many kinds, sanitary construction, devices for noise prevention, restful colorings, etc.

6. Economy.—Economy in hospital construction includes economy in production and economy in use. It is a mistake to consider building cost apart from maintenance cost. Broadly speaking, economy in use is more important than economy in production. A metal door frame may be cheaper in the end than a frame of wood, a tile or terrazzo floor may be cheaper in the end than one of composition, a white metal faucet may be cheaper than a red, a copper cornice cheaper than one of galvanized iron. Durability is not extravagance. Extravagance in hospital construction resides in mere exterior decoration; in the use for interior finish of costly materials which are not especially durable or easy to care for; in waste of space; such extravagance carries with it the penalty of high maintenance costs.

Generally speaking, a concentrated institution is cheapest to build and to operate, but extreme concentration and simplicity of design which disregard the diverse demands of varied functions ultimately defeat their own ends; when concentration and simplicity are carried too far, the hospital is forced either to live in a straight-jacket or to cast off its original garment and acquire a new and more appropriate one.

To spend without the assurance of proportionate present or future gain is to be extravagant. An economical hospital is one in which every cubic foot of construction gives the maximum service attainable, under the given conditions.

III. THE PROBLEM OF COST; SUGGESTIONS FOR REDUCING COST.

The most insistent problem of the day in hospital construction is the problem of cost. The Committee has sought the advice of architects, engineers, builders, and others who have been active in the hospital field, as to practicable means of reducing construction and equipment costs. The Committee is grateful to those who have contributed their views. Use has been made of the essential parts of all of the suggestions received except those which were of a negative or a purely personal character. The opinion seems to be prevalent that the Association should inaugurate a movement in the direction of standardization in the interest of economy.

Arnold W. Brunner, Architect, New York.

It is suggested that the cost of the excavation for hospital buildings may be materially reduced by regulating the height of the cellars so that the lowest possible height shall be used. The cost of the excavation may also be reduced by excavating only spaces actually required. It has been my practice to allow 40 lbs. per sq. ft. as the live load for the calculation of the floor loads; in designing the last group of the Mount Sinai Hospital buildings, the Building Department asked for 75 lbs. as the live load, but finally gave consent to the use of 40 lbs. per sq. ft.

It is the opinion of prominent building contractors that there is nothing to be gained by building hospitals of reinforced concrete in the large cities, owing to the high cost of cement and the increased wages of carpenters who are required for the erection of the wood forms, and that all things considered the most economical construction is that where steel beams and the 4" cinder concrete arches of approximately 5'-0" spans are used. In my judgment brick buildings for hospitals are more satisfactory in every way; I recommend, however, that foundation wall and walls below grade be constructed of concrete reinforced where necessary. It is suggested that floor beams shall be so arranged that they will occur equally spaced in the ceilings of the rooms and that a considerable saving would be obtained by omitting the usual suspended ceilings of metal lath and plaster and by plastering directly on the floor arches and beams exposed in the rooms.

Satisfactory results may be obtained by the use of ordinary common brick selected as to color and quality and laid up in light colored or white mortar in a pattern similar to Flemish Bond, thus saving the cost of expensive face brick. Where stone is desired in the exterior design a very considerable saving may be obtained by the use of cut cast stone instead of real stone. One of the largest hospitals in this city is finished on the exterior in a very satisfactory manner with stucco.

Arched brick windows are not economical because of the cost of grinding each particular brick to a wedge shape; an economical effect may be obtained by the use of straight bricks set vertically and supported on light steel lintels; with this method the cost is reduced both as to materials and labor of setting.

The projection of the main base moulding on building exteriors which occurs at the grade level affects the thickness of the foundation walls; a reduced base projection will result in a reduced thickness of the foundation or cellar wall under the base course.

Economies of no great value may be obtained by the substitution of gypsum plaster or metal lath-and-plaster thin partitions of 1½ to 2-inch thickness, but in my judgment the 3-inch hollow terra cotta partitions give the best results.

A slight economy may be obtained by the omission of wall furring on exposed outside walls and coating the walls with a waterproofing compound to receive the plastering, but the efficacy of such a method is largely dependent upon the life of the waterproofing and failure may result in ultimate repair bills.

The most economical floor covering to use is cement instead of terrazzo or tile, since it may be utilized as a finished painted floor for certain rooms, and also furnishes a base upon which linoleum floor coverings may be placed for wards and private rooms.

Stamped steel sanitary base has been used successfully and economically instead of tile and terrazzo.

It is the custom to use marble partitions for toilet rooms and bathrooms; a considerable economy may be obtained by the use of stamped steel enamel finished partitions.

The doors to individual water closet compartment partitions are items of considerable cost; these doors may be omitted entirely under certain conditions. Such doors are frequently an obstruction to wheel chair patients.

Door trims of wood are costly; steel trims reduced in size to the least possible requirements are cheaper and more sanitary. Windows should not have any trim.

Expensive hardwood need not be used for doors; very satisfactory results can be obtained by the use of birch doors, stained and finished to imitate hardwood. In the place of flush doors without any panels, an economy could be obtained by using one or two-panel doors with a quarter round moulding, thus making a sanitary treatment.

The rounding of vertical, internal and external corners and internal and external ceiling angles as a sanitary treatment of plastering, adds considerably to the cost. Economy can be obtained by plastering the building the same as any commercial or residential building with straight corners and angles, using metal corner protectors for all external angles which may be subject to injury.

Wall tiling should be used where required, but an economical substitute consists of patent plaster with white finishing lime and a proportion of Portland cement. Plaster the surfaces where tile is required and line off in tile form imitating the size of tile required, and when dry finish with painted enamel finish; this mixture will form a very hard surface and would be suitable

for use as wainscoting in toilet rooms and bathrooms, but is not recommended for kitchen wainscoting or in operating rooms. If real wall tiles are preferred economy may be obtained by using straight edge tiles, instead of curved solid tiles forming solid coved or rounded corners for internal angles. Another economy, if real tiles are preferred, may be obtained by specifying "Standard" tiles instead of "First Quality."

In order to reduce expense in the hardware only the actual requirements should be specified; for instance, all doors do not require to be locked and locks and keys therefore may be omitted; all windows do not need to have sash lifts and sash fasteners; door hinges may be made of steel instead of bronze except where exposed to the weather; friction pivots may be used for transom sash instead of transom rods; hardware throughout cellar and storage spaces may be of the simplest economical character.

Painting should be deferred for one year after completion of the building and at such time could be done by painters employed directly by the hospital, thus saving the cost of contract labor.

Some of the drastic economies suggested may not be altogether desirable, and would not be considered at all except for the high cost of building at the present time.

Benedict Stone Corporation, New York.

It is our opinion that there will not be any general lowering of prices of building materials for a considerable period. The great part of the work is done by skilled labor having wage scales covering various periods and which it is going to be very difficult to reduce. We do not believe it will be possible to reduce them until a depression of some magnitude is experienced, and there is a possibility that unless the building situation is handled with the greatest care, there will be still further increases in the wage scales.

James B. Clow & Sons, Chicago, Illinois.

We recommend:

1. A careful selection of fixtures with a view to obtaining those which best serve the particular purpose involved.
2. The installation of only that quantity of fixtures which will adequately serve the purpose.
3. The arrangement of the wash rooms and places where fixtures are to be installed, etc., in such a way that the least possible piping and labor of installing are required. This is a matter for careful study by your architects and engineers. For example, if you happen to have a men's and a women's toilet

room on the same floor, it would be far more economical from an installation point of view to locate them both at the same end of the building, rather than at opposite ends, unless the whole plan of the building requires study of its particular requirements; but the end in view is to install the fixtures with the fewest long runs of pipe, etc.

J. R. Colville, National Lamp Works of General Electric Co.,
Cleveland, Ohio.

In many cases needless expense is incurred by failure to make proper provision for adequate lighting at the time the plans for the building are still on paper. In any work where the artificial lighting requirements are out of the ordinary, as is distinctly the case in hospital buildings, it is very important that the closest cooperation exist between the architect and the illuminating engineer. Illuminating engineering service is readily available and this service should be utilized more freely.

Connecticut Telephone & Electric Co., Meriden, Conn.

A fair sample of what might be done can be drawn from inspection of a chain pull calling station, less expensive than many types of stations, but performing a similar function. Circuits are closed entirely by mechanical means, no relays are employed, which, of course, is an important factor from a maintenance standpoint.

Marc Eidlitz & Son, Builders, New York.

One way of getting some standardization in the direction of reducing the costs of hospitals in various directions might be to have periodical meetings attended perhaps by competent hospital administrators, consultants, two or three architects who specialize on hospital work, two or three builders, and possibly one or two other people whose experience might be of value; at these meetings various items to be discussed as they would be at the staff meetings of any large construction company, and the opinion of the majority to be boiled down into some concise form which would be readily usable.

Warren C. Hill, A. I. A., of Kendall, Taylor & Co., Architects,
Boston, Mass.

A point to consider is the time of year that a Building Committee put their projects out for bids—like most other human beings they awake to new life and energy in the spring, resulting in a congestion in the material market and consequent high prices. Statistics kept for some years prove that from September 1st up to and including the month of February, better prices

can be obtained—even in such a year as the present one—than between March 1st and September 1st.

Another method is that of purchasing or contracting for work. In January of this year bids were asked for 600 tons of steel; the market was caught at the ebb tide while the fabricating plants were under large overhead expense and were doing comparatively little business. The steel was purchased at a saving of fifteen to eighteen thousand dollars over the quotations of three months later. About the same period proposals were called for on 1,200 tons of limestone and an alternate for high grade cast stone with a surface finish like that of limestone. The prices on both forms of material were 25 per cent lower than they are today, and the artificial stone was 50 per cent less than the limestone.

Just how far a Building Committee cares to go in the purchasing of material through the architects depends upon the personalities of both, but on operations in this market in recent years the owner is paying a smaller percentage to the general contractor, taking his own discounts and paying his architect little more than he ordinarily would do—in fact, most architects, at the prospect of having their work go ahead, would gladly do the purchasing without an extra charge.

If trustees and hospital executives in their building program would cooperate with architects, contractors, etc., to add to the length of the building period of each year, it would be to their advantage as well as to the benefit of labor. The shortness of the season and the bidding by contractors for labor in that period is one of the sore spots of the industry.

Kewaunee Manufacturing Co., Kewaunee, Wis.

Money is wasted in many cases by building special laboratory and dietetic equipment to meet the specific idea of some person, who, perhaps, has not had the experience nor the opportunity of studying the requirements of what might constitute a practical equipment that would afford every utility, though not made "special" for the purpose intended, but rather following the experience of many designers of such equipment, covering a long period of time.

Laboratories in hospitals are not generally piped properly for receiving laboratory and other equipment. In many cases the right materials are not specified, especially in piping for drainage, and the supply of hot and cold water, gas, vacuum, air, distilled water, electricity and mechanical ventilation for chemical and other goods.

Richard D. Kimball Co., Engineers, New York .

The problem of the high cost of construction has been before us since the war. In order to reduce costs, we frequently use lead lined steel pipe where brass pipe had formerly been used. We frequently substitute air cell pipe covering where magnesia was formerly used, even though it represents a very slight sacrifice of efficiency. Slightly higher gauges of sheet metal are frequently used. The shortening of the runs of pipe and duct work is carefully studied.

Ludlow & Peabody, Architects, New York.

A thorough study of the efficiency of labor has recently been made with the idea of developing the facts relative to seasonal employment. This study shows that our old ideas as to the greater efficiency of labor in the summer months rather than in the winter are to an extent fallacious. I say "to an extent," for I refer to times such as the present when, during the summer months, there is more work to be done than there are men to do it. High wages, too, have a relaxing tendency psychologically.

Now, since building has slackened to a considerable degree and as we are facing the winter months, conditions have changed to such an extent that any work that can be started at the present time is likely to cost as little, or less, than anything we can expect in the next two or three years. There is the additional fact that contractors facing a shortage of work during the winter months are likely to curtail their profits.

Virgil G. Marani, Chief Engineer, The Gypsum Industries, Chicago, Ill.

A contributory cause to the high cost of building can usually be traced to building code requirements which are antiquated, and, for political or other reasons, are not revised to provide for recent developments in construction which make possible the use and combination of materials which will reduce the "dead" weight of the structure, and in some cases, hasten the completion of the building.

A consistent research of all building laws will disclose many unnecessary and penalizing regulations. There is no excuse, from any point of view, for the 57 or more different varieties of building regulations. Steel, lumber, concrete and practically all such materials observe the same general physical properties whether in New York or Los Angeles, but you will find stipulations on the use of these materials in the cities mentioned very different when compared.

Regulations involving air, light, occupancy of lot space,

height, and so forth, will of necessity differ. These conditions are subject to geographical location, topography and similar conditions peculiar to the place in question. When it comes to permitted stresses, strength of materials, fire protection, fireproofing, etc., there should be no difference, and an architect in New York should have no question to raise when designing a hospital, or any other building for Los Angeles, when detailing:

- The character of materials to specify.
- Kind of incombustible construction.
- Kind of fireproof construction.
- Kind of non-bearing partitions and enclosures.
- Kind of fire protection for columns, trusses, etc.
- Kind of fireproof floors and roofs.
- Working stresses on steel, lumber, concrete, etc.
- Thickness of non-bearing curtain and apron walls, etc.

The J. L. Mott Iron Works, New York.

Those in charge of the building of hospitals should cooperate more closely with manufacturers in specifying fixtures, getting away as far as possible from special work, getting standard fixtures, placing orders and writing specifications at such a time and in such a way as to involve the minimum expense of filling the order.

Frederick A. Muhlenberg, Architect, Reading, Pennsylvania.

There are patented articles on the market such as different types of windows which enable the omission of weights, boxes, etc.; types of construction for concrete which eliminate a proportion of the temporary supports; reinforcing systems which do away with a part of the manual labor of placement; steel bucks and trims which do away with a lot of fitting; and many other such articles or methods of merit. It has, however, been our experience that if there are any savings in these patented articles the manufacturer of the article has absorbed practically all the saving.

It has also been our experience that in a smaller city (which may represent the average condition) the contractors (especially subcontractors) do not read specifications very carefully. We often definitely specify materials or methods which might effect a saving but have found that men bidding on the work assumed that this office would not be satisfied with the results so achieved and figured the usual practice. Occasionally I have had men who understand the savings which can be affected by the specified devices or methods and the result has appeared in the bids. We are almost tempted to believe that the

average methods of construction and finish give the best results both in speed of construction and economy in cost, and that bidders generally add an increment to their bid when they see a material or a method with which they are unfamiliar.

Charles F. Owsley of The Owsley Company, Construction Management, Cleveland, O.

There are cases where structural ingenuity may effect a saving, but the structural elements of a hospital building constitute a relatively small item of the total cost and have been discounted in buildings already constructed. The cost of hospital construction will not recede because the requirements of hospital work seem to demand increased facilities in the matter of permanent equipment, as well as the usual expensive materials for finish, involving sanitation, sound-proofing, water-proofing and numerous electrical and mechanical installations. The general economic aspect for cheaper buildings offers little encouragement.

Petroleum Heat and Power Company, New York.

Economies in operation might be effected by the use of fuel oil in localities where fuel oil is available, instead of coal, for heat, light and power. This economy is all the greater where the contract for the fuel oil burning installation is made at the time the building is constructed, because the first cost in this case is much cheaper than when an installation is made in an old building. The tanks may be buried, and generally, the boiler room design may be laid out in such a way as to insure the most economical installation.

Portland Cement Association, Chicago, Illinois.

The successful designer of fireproof construction forgets the old way of doing things and adjusts his methods to the requirements of the newer building materials, many of which have been developed primarily as fire resistants. By making use of a reinforced concrete structural frame to carry all the loads to which the building is subjected, he is able to eliminate heavy exterior masonry walls. He can eliminate 12-inch interior masonry bearing walls and substitute in their place lighter walls of hollow tile or hollow concrete partition block three or four inches thick. He will use metal lath and portland cement plaster partitions or light partition block or tile in place of the old type of wooden partition.

In the matter of fireproof floor construction the designer who thinks in terms of ordinary construction virtually builds two floors in one, by imbedding wooden sleepers in the rein-

forced concrete floor slab, filling in between the sleepers with cinder concrete, then nailing wooden flooring to the sleepers. He designs the floor in this manner because it is the nearest approach to the wood joist floor, the sleepers taking the place of joists. In a word, he can not rid his mind of the old type of wood joist floor. The more progressive designer, who really understands the principles of fireproof and fire resistive construction, selects one of the lighter types of reinforced concrete floor construction, such as concrete joists and metal cores, and applies a floor finish of cement mortar, mastic, linoleum or other material, directly to the surface of the structural concrete. His floor is lighter and costs less than the "two-in-one" floor designed by his less progressive brother. Furthermore, he eliminates interior trim wherever possible and depends upon plaster, staining, etc., to obtain the interior effects desired.

Van Rensselaer P. Saxe, C. E., Baltimore, Maryland.

System "M" steel frame construction fireproofed with stone concrete is a most economical form of fireproof construction to be used for hospitals and similar classes of buildings. This construction has been used in the following hospital buildings:

Mercy Hospital, Baltimore, Md.; Home for Aged and Infirm Hebrews, New York City; State Hospital for Criminal Insane in Pennsylvania; Johns Hopkins Hospital at Baltimore, Md.; Epileptic Colony Hospital Group at Springfield, Md.; The Hospital for Colored Insane at Crownsville, Md.; The Union Memorial Hospital at Baltimore, Md.; Church Home and Infirmary, Baltimore, Md.

This construction made large savings in the cost of the floor construction in these buildings, amounting in some cases to nearly eight per cent of the total cost of the buildings. These savings were made after this construction had been substituted for the original types of fireproof floor construction for which the work had been laid out, so that the savings are not imaginary. The substitution was made so as to carry exactly the same loads as required under the original layouts and meeting the same engineering requirements. Most of the work built with this construction has been done in large cities having building codes where strict supervision of designs is maintained, so it can be seen that these savings are not, so to speak, skinned out of the building but are inherent in the construction itself, which is designed according to American Society of Civil Engineers Committee requirements.

Richard E. Schmidt, Schmidt, Garden & Martin, Architects, Chicago, Ill.

A constant search for the most economical forms of construction over a period of more than twenty-five years has convinced us that reinforced concrete, using steel pan forms, is the cheapest fire resisting construction, especially if the metal lath for ceilings is integral with the pans as it is in one proprietary system, but that does not provide a convenient or adequate space for conduits or horizontal pipes under bath rooms, toilets, etc.

System M patented type of reinforced concrete and structural steel design is suitable for buildings of any height and probably cheaper than standard structural steel framing, but not as cheap as reinforced concrete of the type described above. There is a considerable saving in form work in the application of that system, but if the initial cost of the structural steel required by it is considered it is very doubtful if this system, as a whole, is as cheap as the reinforced concrete construction described.

Inasmuch as actual proof of costs can only be obtained by the preparation of drawings and specifications and submitting both types to the same contractors simultaneously to insure that all units are estimated on the same prices for material and labor, we realize that a statement made without such proof cannot be accurate; however, we have made such comparisons from time to time in the interests of our clients and are positive there is no system patented or unpatented which can be obtained for less money than ordinary reinforced concrete, using steel pan forms, in the majority of localities of this country.

Edward F. Stevens of Stevens & Lee, Architects, Boston, Mass.

I believe the greatest factor in the preparation of plans is to see that they are carefully shown in every detail. In other words, that every question which the builder might ask in making his estimate might be carefully answered by the plans and specifications, for no contractor is going to take chances in putting in an estimate on an indefinite set of plans or specifications. Another very important element in planning economical institutions is that the construction element be very carefully studied, so that the simplest, most direct forms of construction can be brought into play; and that the local market be considered in specifying material.

Meyer J. Sturm, Architect, Chicago, Ill.

Extravagant expenditures for so-called "refinements" have become legion in the last few years. Simplify, and go back to essentials. Our hospitals should be slightly, attractive and safe;

they should be as near perfect as possible as working, workable units; but I deplore insistent demands by executives for each and every new thing which is advertised in hospital literature. Some of these are adaptable to some institutions, all of them never. When Rome had gone through practically the same experience, Justinian and Theodore burned all the law books and gave the Justinian Code. Why cannot we do the same? Why cannot the A. H. A. take a stand similar to this? The opposite is the present procedure, especially at conventions.

United States Gypsum Company, New York.

Long span systems employing concrete joists and tile voids cost considerably less than beam and slab construction due to the elimination of portions of the concrete not working, and by reducing the number of times the load changes direction on its way to the foundations. Compared to other long span systems, Pyrobar Floor Tile construction requires less concrete and entirely eliminates metal lath ceilings and accompanying scratch coat of plaster, reinforcing steel is reduced to a minimum and the open deck system of form construction is employed. The light weight results in a reduction in supporting beams and columns. Pyrobar Gypsum partitions possess advantages in the way of sound and heat insulation and light weight.

T. J. van der Bent of McKim, Mead & White, Architects, New York.

As to claims of certain engineers and material agents who claim possible savings when their special method of construction or their special material is being used, I would say that not one of them has been found warranted on careful investigation.

The principal trouble in hospital construction is that neither architects nor doctors know exactly what is absolutely needed for good and economical hospital construction. Standardization of hospital construction and hospital planning is one way out, and when the doctors can agree definitely as to what shall be condemned and what shall be adopted, the laws laid down to the architects will then prevail.

It is still an open question as to how much the general aspect of the hospital influences the feelings of the occupants. Have they no objection to entering a building which looks like a barrack or a prison? Do they have no bad effects from same? Is there good excuse for going to the extreme? If so, then architects are obligated to save every penny possible on the exterior of the building, not paying any attention to the general aspect.

Wilmot Castle Company, Rochester, N. Y.

The average hospital, particularly the smaller hospital, does not plan intelligently for the installation of its sterilizers, and many times it is necessary to spend a good deal of money before the hospital is finished in correcting mistakes made in the original plans. For example, I have known a number of fairly large hospitals in which the actual construction work was nearly completed before any arrangements were made for heating the sterilizers, necessitating a good deal of expensive piping from the basement to the top floor, and in some cases to other parts of the building, for steam or gas lines or perhaps for electric lines. Obviously the cost of doing this work after the walls and floors are in is very much higher than it would have been had the work been done at the proper time. Incidentally, as a rule, where this work is put off to the last, much of the work is done improperly because the completion of the walls and floors makes it extremely difficult to locate the pipes exactly where they are needed.

In most new hospitals a lot of more or less expensive heating equipment is provided in the sterilizing room, sometimes in a very small sterilizing room, where under the best of conditions there will be too much heat anyway. The radiator in small sterilizing rooms is rarely if ever needed and it constitutes an item of expense, of course, which might be easily eliminated.

Wolff Manufacturing Corporation, Chicago, Ill.

The average architect's specifications on hospital plumbing goods lack any tendency toward the selection of standardized fixtures. But the fault is not primarily with the architect so much as it is because of lack of cooperation between the architects and manufacturers of plumbing goods fixtures. All plumbing goods installations in connection with hospital work are now regarded as special. There is too great a variety of types and sizes, all of which means higher cost of production, higher selling costs, and, of course, higher selling prices. It affects the question of deliveries quite seriously, as well.

There is an opportunity for the Committee on Construction of the American Hospital Association in conjunction with established manufacturers of plumbing goods to work out a standardized line of plumbing fixtures for hospital use, definitely establishing specifications in reference to basic materials from which these fixtures should be made, as well as their designs and operations. With these standardized specifications in force it would first eliminate a great many superfluous items, secondly enable all manufacturers to bid on the same thing, and thirdly

establish at the time of closing the contract the kind of goods the hospital board and the architect could expect. Naturally, the tendency for costs and selling prices would be downward under this plan. The success of the plan could only be assured if it were worked out under the auspices of your Association and definitely accepted by it.

Wyatt & Nolting, Architects, Baltimore, Md.

The three greatest savings we have been able to effect in hospital designing to help reduce the present cost have been:

1. Simplicity of structural layout.
2. A combination of System "M" and the Schuster Arch construction.

3. The use of mastic floors, thus eliminating the unsatisfactory cinder fill, in lieu of wood floors, and making a considerable saving per square foot.

The Associated Tile Manufacturers, Beaver Falls, Pennsylvania:

The following suggestions are made for effecting economies in planning and writing of specifications:

1. Specify the least expensive kinds and sizes of tiles.
 - (a) For floors this would be $\frac{3}{4}$ inch square, or 1 inch hexagon, white ceramic mosaic.
 - (b) For walls this would be 6×3 or $4\frac{1}{4} \times 4\frac{1}{4}$ white glazed tiles (bright finish).
2. Eliminate borders, trim and other purely ornamental members.

- (a) Wainscot caps may be eliminated in many cases, and the tiling made flush with the plaster wall above the wainscot.

- (b) Floor borders require kinds of tiles which are slightly more costly than the white and, in addition, involve extra work in laying.

- (c) Door and window trim may be eliminated and the wall surface and wainscots returned direct into the jambs.

3. Substitute covers for cove bases.

It is slightly less expensive, both in material and labor, to use a $1\frac{1}{2}$ inch cove tile along the floor line and to run the wall tiles from this cove, than to use a 6 inch base tile.

4. Specify the least laborious methods of setting.

(a) *Floors.* Patterns involving great accuracy and long straight lines require considerable care on the part of the tile setter. Broken or staggered joint patterns give satisfactory appearance without that extraordinary care in laying. Three-quarter inch square white ceramic mosaic, mounted broken joint and 1 inch white hexagon give satisfactory appearance with less care than straight joint or larger patterns.

(b) *Walls.* Tiles set broken joint involve the least amount of time and labor in setting. Straight joint work requires greater skill and more time.

5. Specify square inside (concave) angles for intersections of wall surfaces.

So-called combination work with interlocking corners takes considerably more labor and certain trim tiles, than the square work where the regular flat tiles are used to form the corner.

6. Specify tiles by the established grade designation, which for white glazed wall tiles are: Selected, Standard and Commercial; and for floor tiles: Selected and Commercial. The Standard grade of white wall tiles is entirely satisfactory for hospital work and under present economic conditions the savings over "Selected" are worth while. For utility rooms and service corridors even the Commercial grade will give the same results in permanency and sanitation, and the slight blemishes in appearance are of no particular account. For floor work nothing but Selected grade should be specified.

Richard E. Schmidt, of Schmidt, Garden & Martin, Architects, Chicago, Ill.

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Virgil G. Marani, Chief Engineer, The Gypsum Industries, Chicago, Illinois.

A contributory cause to the high cost of building can usually be traced to building code requirements which are antiquated, and, for political or other reasons, are not revised to provide for recent developments in construction which make possible the use and combination of materials which will reduce the "dead" weight of the structure, and in some cases, hasten the completion of the building.

A consistent research of all building laws will disclose many unnecessary and penalizing regulations. There is no excuse, from any point of view, for the 57 or more different varieties of building regulations. Steel, lumber, concrete and practically all such materials observe the same general physical properties whether in New York or Los Angeles, but you will find stipulations on the use of these materials in the cities mentioned very different when compared.

Regulations involving air, light, occupancy of lot space, height, and so forth, will of necessity differ. These conditions are subject to geographical location, topography and similar conditions peculiar to the place in question. When it comes to permitted stresses, strength of materials, fire protection, fire-proofing, etc., there should be no difference, and an architect in New York should have no question to raise when designing a hospital, or any other building, for Los Angeles, when detailing:

The character of materials to specify.

Kind of incombustible construction.

Kind of fireproof construction.

Kind of non-bearing partitions, and enclosures.

Kind of fire protection for columns, trusses, etc.

Kind of fireproof floors and roofs.

Working stresses on steel, lumber, concrete, etc.

Thickness of non-bearing curtain and apron walls, etc.

President Bacon then read communications from the following: President Calvin Coolidge; President of the British Hospital Association; Sir Napier Burnett; Capt. Mackintosh of the Western Infirmary of Glasgow; ex-Vice-President Marshall; ex-Governor Lowden; Governor Blaine of Wisconsin; William J. Bryan; Dr. William J. Mayo and Surgeon General H. S. Cummings.

PRESIDENT BACON: It is only fair to say that Mr. Matthew Foley wrote a letter to Secretary of the President calling his attention to this silver jubilee of the American Hospital Association, and no doubt that is the way the attention of the President was drawn to our jubilee conference.

The session then adjourned.

AMERICAN HOSPITAL ASSOCIATION
Twenty-fifth Annual Convention, Milwaukee, Wisconsin,
October 29, 1923, 8:00 p. m.

GENERAL SESSION

HOSPITAL STANDARDIZATION

Conducted by the American College of Surgeons, Chicago,
Albert J. Ochsner, M. D., President, in the Chair

DR. M. T. MACEachern, Chicago, Associate Director, American College of Surgeons: Ladies and Gentlemen: As the Director of Hospital Activities for the American College of Surgeons, and on behalf of the College, I want to thank President Bacon and his confreres for arranging this program tonight. Contact of this kind means better knowledge of each other's activities, and with this better knowledge comes increased cooperation. As a member of the American Hospital Association I am particularly delighted that we can discuss together Hospital Standardization. It is quite unnecessary for me to introduce to you the Chairman of the evening, Dr. A. J. Ochsner, of Chicago. I want to call your attention to two things about Dr. Ochsner. Firstly, according to the history of the Association, revealed by Mr. Bacon today, he was on your program in the year 1905 or at the seventh meeting, when there were seventy-seven members present. He gave an address on that occasion on "Multiple Story Buildings for Hospitals in Cities." Secondly, Dr. Ochsner continues to have an ever increasing interest in hospital affairs. We are very proud in the American College of Surgeons to be under his leadership this year as President. He has his whole heart in the program of standardization. Without further reference I will ask Dr. Ochsner to preside and address you briefly tonight.

DR. ALBERT J. OCHSNER TAKES THE CHAIR.

CHAIRMAN OCHSNER: Ladies and Gentlemen: That seventh meeting and seventy-seven members sounds a little like the seventh son of a seventh son. As a matter of fact, my active life, outside of my life as a farmer, has been spent in the hospital. Forty years ago it became clear to me that the hospital furnished a wonderful field for productive work, so that I began to form this hobby of hospital work, which I have kept up ever since. There is a story about a visitor in an insane asylum seeing a man apparently riding horseback on a carpenter's horse. The visitor complimented the man on the fine horseback ride he was having, and the man said, "Don't you know the difference between a horse and a hobby?"

The sane man could not give the difference and the insane man said, "You can get off a horse." Now I have not been able to get off my hospital hobby, and so when my good friends of the American College of Surgeons got onto the hospital hobby, I rode with them vigorously and always in the direction of constructive work.

I believe that persons who choose this work for their life work have an intense humanitarian interest and although they may not have the experience or training or possibly the educational facilities that might be desired, they have the desire to make their hospitals as fine for their patients as they can be made under the existing circumstances. In all of our hospital conferences in the American College of Surgeons, it has always been the fundamental principle to assist every hospital in a constructive way to get on toward the point at which that particular hospital can do its best in the individual conditions under which it exists. I believe that in that way very much more has been accomplished than could have been done in a critical way, because in doing this one gets to the bottom of the troubles which hospital people have, and the wider one's experience in hospital work, the more able one is to suggest remedies for these hospital troubles, and conferences like this are certain to bring out many remedies which each one can use when he returns to his home. I believe that if the American College of Surgeons should demand unreasonable conditions in its standardization of hospitals, it would do an endless amount of harm. If it assists in developing conditions that may seem unreasonable at first, but which will work out to the benefit of the institution and its patients with the advice and help that the College can furnish, then conditions of efficiency will be developed which would otherwise be absolutely impossible.

In following this plan I believe that it is possible for the College of Surgeons to be of a very great amount of help to the community and to the hospitals and to the hospital workers. The one who has been the most intensely active in the planning of the work of hospital standardization is the speaker next on the program. I wish to introduce Dr. Franklin H. Martin, Director General of the American College of Surgeons.

DR. FRANKLIN H. MARTIN: Mr. Chairman and members of the American Hospital Association: The United States flag here on my right and the British flag here on my left remind me that this is not a Yankee organization; it reminds me that you are from all parts of the North American continent, and, therefore, I would like to say something to you that many of you may not know.

I, personally, am very fond of Wisconsin; it is the place of birth of a number of great physicians and surgeons, some of the greatest in the United States. Why they do not remain here, of course, I am

at a loss to say, but Wisconsin has been the birthplace of many of them. Dr. Favill, the great internist of Chicago, came from near Janesville; Dr. Joseph Bloodgood, of Johns Hopkins, came from somewhere south of here on the coast; Dr. Frank Billings, the great internist and teacher of Chicago, came from near Madison; Dr. Archibald Church, the neurologist, came from Wisconsin; Dr. Frank Cary, one of the leading obstetricians of the United States, came from Wisconsin; Dr. Nicholas Senn did all his principal work or at least his preliminary work in Milwaukee and moved from Wisconsin to Chicago and, as you know, became one of the greatest teachers of surgery in the world; Dr. Albert Ochsner, the chairman of this meeting, came from near Madison; Dr. John B. Murphy also came from Wisconsin, and last, but not least by any means, I come from Wisconsin myself.

I am keenly appreciative of the honor which has been conferred upon me by the invitation to make the opening address before this great organization. From the beginning of the hospital-betterment program of the American College of Surgeons, this organization, with its powerful influence radiating over a whole continent, has been sympathetic to it, and has cooperated to make it a success.

WHY THE COLLEGE ACTED: It is now well known that the interest of the College in hospital betterment at the beginning was based on the necessity of the College to standardize the environment in which surgeons do their work. This immediately brought about the realization that this environment interested the internist, the obstetrician, the pathologist, and all other specialists of medicine as much as it interested the surgeon.

HOSPITAL ORGANIZATION: It soon became just as apparent to superintendents, to hospital trustees and to the lay public, that their hospital should have some standard basis of uniformity and efficiency.

AMERICAN AND CANADIAN HOSPITALS: This does not mean that a millenium in hospital management has been established in the last eight years. Two generations of personal sacrifice and individual effort already had placed the worthy hospitals of the United States and Canada in a position of usefulness to all grades of society, causing astonishment and envy in England and in continental Europe.

These worthy institutions, and the great churches and societies responsible for their existence, at first looked askance upon the ambitious program of the youthful society, but soon they recognized its sincerity and welcomed its disinterested aid.

TECHNIQUE OF OUR BEGINNING: In the beginning the College accumulated valuable data through conferences, correspondence, and

a carefully conducted research into hospital management. This information revealed three outstanding problems that required solution by any organization that hoped to aid in the betterment of hospitals, viz., first, the establishment of a minimum standard; second, a personal visit to each institution by a representative of the standardizing agent; and third, an accurate record of the findings of the representative that would be available to the public.

THE MINIMUM REQUIREMENT: In formulating the program, which has been pursued intensively for seven years, the College has held many conferences, and has consulted everyone known to be interested in hospital management and hospital betterment. A minimum standard was agreed upon, the provisions of which were fundamental. Briefly, the minimum standard, with which it was believed every hospital should conform, provides for the following:

1. An organized medical staff comprised of qualified physicians and surgeons.
2. A monthly meeting of staff members to review the professional work of the hospital.
3. A system of comprehensive case records.
4. An acceptable clinical laboratory.
5. Satisfactory evidence by the hospital authorities that the medical staff of its institution is comprised of legal practitioners of medicine who are opposed to the division of fees.

THE PROGRAM: This was the program decided upon. Its requirements were reasonable; its method of presentation was acceptable and the work of the investigators, because of the personal visits and the impartial manner of making the reports, appealed to the hospitals as an honest and disinterested effort to arrive at facts. The information conveyed to the public as the result of these surveys has been generally approved.

ACTION BEGOT INSPIRATION: Without ostentation, this movement of the standardization of hospitals has been its own propagandist. It has convinced the medical profession that a great event has been transpiring; that when two or more individuals get together in harmony, even in the profession of medicine, and pursue a course of self-betterment, the results are stupendous and the effect inspiring. Every hospital trustee, every superintendent, and every nurse of the North American Continent has been drawn into the vortex of this movement, and each one prides himself on his part in it. The public has been consulted by a hitherto exclusive profession of medicine, and has been asked to share the responsibility of aiding in the betterment of hospitals. Business men of large and small communities have learned that the profession of medicine can conduct its affairs in a businesslike manner as well as wield the scalpel and

administer drugs. One of the conservative philanthropic foundations, the Carnegie Corporation, after a thorough investigation of this program, for five years contributed toward its financial support a sum aggregating one hundred and fifteen thousand dollars, in addition to a sum of one hundred and eighty-five thousand dollars contributed by the College, representing a total expenditure during five years of three hundred thousand dollars.

And nowhere has there been more enthusiastic support than by your great association, viz., the American Hospital Association. Added to this has been the support and cooperation of the Catholic Hospital Association, the Protestant Hospital Association, the Methodist Hospital Association and all others international in scope.

EASIER TO DO A BIG THING: How much easier it is to do a big thing than a little thing! Back of this movement has loomed a great ideal—harmony of action between all peoples, and a great profession dedicated to relieve suffering, to make whole the cripple, and to guard those enjoying health against sickness. The profession of medicine, through this movement, has been able to take the people into its confidence, and the public has had a glimpse of the reliability of the art of medicine. The mystery has been swept away, as in the parting of a veil, and in the place of misunderstanding has been revealed the romance of medical accomplishment. This revelation of an ideal has brought forth the desire on the part of those who have seen to become a part of it by rendering service under its leadership. It is not unlike the inspiration imparted by a national or a religious emblem; it has thrilled, and it has compelled loyalty.

THE FUTURE: The hospital standardization movement of the American College of Surgeons is destined to reach far into the future. History will record that with the beginning of this event curative medicine and the people entered into an understanding with each other; that this understanding revealed the profession of medicine as the legitimate conservator of health, and the hospital as the laboratory in which the most serious part of its work can safely be accomplished.

OUR INHERITANCE: Inasmuch as the American College of Surgeons initiated this program for better hospitals, and inasmuch as it has assumed the burden of financing the movement, obviously it must take the responsibility of continuing its work. The analysis of its surveys in the past has contented itself with announcing a list of those institutions which have met or exceeded the minimum standard. The mass of interesting material that has been accumulated in the seven years' survey of the College offers a great temptation to make a comparison of hospitals which would result in a classification. It is feared that any attempt to grade these institutions by the American College of Surgeons would interfere with its influ-

ence as a disinterested observer, because of the danger of a charge of invidious comparisons. It may become the duty of the College to grade the hospitals upon the approved list when a larger percentage of all of these institutions has met our present standard, or a more rigid standard.

Meanwhile, this mass of information is a reservoir that is legitimately the property of organized medicine, the hospital administrators, and the people who are supporting the hospitals of the continent. The College is its legitimate custodian, and will at all times be ready to impart information to inquirers who may desire to utilize it in the improvement of hospitals.

MADE PUBLIC INTEREST IN SCIENTIFIC MEDICINE: The public has, through this hospital standardization movement, obtained a glimpse of the wonders of scientific medicine. First, there is no adventure in romance that interests the average layman or woman more than the story of the accomplishments of scientific medicine, when it is related sympathetically by an authority and in simple, understandable language. Second, there is no advice that can be given better than by a respected physician, especially if a reasonable explanation of the reason for the advice is vouchsafed. Third, the lessons of scientific medicine, if simply pictured, can find no better propagandist than the lay public. Fourth, the layman or woman will adapt themselves as aids in the work of the physician and surgeon because of their inherent desire to relieve suffering. Fifth, there is a subtle mystery surrounding the art of healing which grips the wise and unwise alike and enlists the sympathies of the learned and the unlearned—sometimes, it is true, to initiate in quackery; but most frequently to grasp, to respect, and to follow. Sixth, there is no appeal to the wealthy that so surely opens the pocket-book as the one from the sick-bed, from the cripple, or from the hospital. Seventh, the medical profession is always ready to aid the public in health education and to treat its ailments.

Then what can be clearer than the means by which the physician may lead in the ways of health and in the eradication of disease?

First, we, as physicians and hospital people, must be willing to recommend our wares in a dignified, but definite, way. This can be done:

a. By telling the public what the medical profession has accomplished toward placing medicine, surgery, and sanitation on a scientific basis. *The Scientific-American* is read by children and grown-ups because of the fascinating marvels it portrays. It deals in scientific accomplishments that do not compare in interest to those medicine has brought forth.

b. By asking the public to cooperate with the profession by obtaining early information about incipient diseases that may be developing, and by submitting to a periodic examination and urging others to do the same.

c. By teaching people the fundamental principles of scientific medicine that they may not be led astray by the sophists of fads, fancies and unscientific cults, and putting into their minds and mouths the answers to those subtle enemies of society.

d. By organizing and fighting quackery with all of our might in our legislatures, where they are powerfully entrenched, fighting scientific medicine and propagating their own nefarious traders in patent nostrums and unscientific practice. Level thinking people will listen to truth if those who speak for it take the trouble to explain what truth is. We have shrunk too long from protecting our own.

e. By making our hospitals and our local societies our community centers of health education in medicine, and by volunteering our services and the services of our assistants and nurses as the teachers of the people.

f. By interesting the people in these problems of health through informal talks, motion pictures, and simple, interesting articles in popular periodicals and newspapers, thus arousing in them the same desire to become a part of an organization to "make it go."

g. By organizing, as was displayed in war time, a great popular guild of which everybody will desire to become a member. Membership in this guild should require a yearly examination to be uniform and recorded on blanks that will remain in the possession of the one examined as a confidential record of his condition.

h. By asking the medical profession, as the guardians of health, to make these examinations of our clientele, and to cooperate with the staffs of standardized hospitals in carrying on this service for all who may present themselves. This work should be liberally backed by the American Red Cross and other philanthropic organizations, and especially industries employing workers and the great insurance companies. National, state and city health departments would welcome such an aid to their work.

i. By placing in the hands of each member of society each month an international magazine, which in the most attractive way would discuss scientific medicine, health problems, and athletic activities, and in which would be given health hints, diet suggestions, rules for exercising and wholesome living. This magazine should be edited by the most competent literary staff that can be secured

and it should have for its object interesting the public rather than furnishing another publication for the guidance of health workers.

j. By organizing the members of the society (under the guidance of international, national, state and provincial, and county branches) to work with the leaders of organized medicine.

The American College of Surgeons in its sectional meetings has been endeavoring to define the attitude of the layman toward a scientific health program. Great public audiences in forty-four states and in four provinces have attended meetings where the leaders in the profession have discussed with them in simple language better hospitals, prenatal care of the mother, the fallacies of anti-vivisectionists, the venereal problem, what the public should know about cancer, and the great impulse that would be given to the extension of life and the eradication of preventable diseases if each and every individual would submit to a thorough physical examination at least once a year. They were told the interesting stories of the accomplishments of science in eradicating yellow fever, malaria, tuberculosis, typhoid fever and the dread diphtheria. These people have listened with great intentness and they have asked in what way they could help. They remember the days of the war when they were welcomed into the ranks of health workers by the Red Cross, the Y. M. C. A., the Knights of Columbus, the Nurses' Aid Organization, and the Salvation Army; and they still thrill at the bigness and usefulness of that great adventure. The medical profession led them because they were aroused.

Quackery slunk back into obscurity during the war because the people were in earnest. They were aroused, they believed in realities, and they were ready to fight to place the medical care of their soldiers in the hands of the scientific doctor. This is proof of the sanity of the people and of their desire to be led if the profession will seriously undertake to lead them.

REV. C. B. MOULINIER: President, Catholic Hospital Association, Milwaukee, Wisconsin: Mr. Chairman, Ladies and Gentlemen, whenever I follow in these programs after Dr. Franklin Martin, I am almost compelled to say something about him or against some of his views in regard to this minimum standard, because I love him so much and I love the standard so much that even a little shadow of misinterpretation, as it might seem to me, provokes remark from me. I was glad that he spoke of the young people; he and I are rivals for youth. I question whether he is a year older than I am, and as he was reminiscing about Wisconsin, I thought that perhaps there were some other great people who had left Wisconsin, and I recalled John B. Murphy, the great world surgeon, and I also recalled what I had said myself more than once about Wisconsin, that it is a wonderful state, there are great men in it, but it seems

that the great medical men in too large number leave it. I have thought over the legal profession, I have thought over the clerical profession, I have thought over the engineering profession, and I have failed to find that the great ones of those professions, as they are becoming near great, seem to leave or do leave, and my only final explanation for members of the medical profession who are feeling greatness growing within them for leaving Wisconsin, is that they go to Chicago where everything great on the continent in medical lines seems to be centered—the American Medical Association, the Council on Medical Education, the American Hospital Association, the American College of Surgeons—so that this hegira of great medical men to Chicago is explained by the fact that one or two or three going there started greatness and all the great medical men have followed suit. The College of Surgeons has had a struggle, the American Medical Association, I suspect, has had a struggle to fasten itself in Chicago. What about New York? What about Baltimore? What about Philadelphia? What about New Orleans? What about San Francisco? They are all great centers, but Chicago is the railroad center, Chicago is almost the population center, Chicago is a center not only for this country, but for Canada, because of the facility of getting there. But it is also the center because it has had master organizers, and of them all—honest, true, successful organizers for the betterment of the profession—you have great ones here, Dr. Franklin Martin, Dr. Ochsner. There is only one great man in medical lines that has come to Wisconsin from the outside, and that is myself.

With my little vision I saw nine years ago that the Council on Medical Education was interested in hospitals from the point of view of the intern. The College of Surgeons had not started yet, and I said to myself, because I was connected with the Marquette Medical School here and knew, that hospitals must look to themselves.

Medical schools are being improved, are being watched, are being standardized, are being classified, are being made to do the right thing for students—and hospitals, whether they will it or not, are the postgraduate schools of medicine.

Nine years ago I gathered the Catholic hospitals together into an organization. Two years after that the American College of Surgeons came in and took hold of the movement, as Dr. Franklin Martin has described, and has done the wonderful work that you all know so much about; but you don't know all about it. I believe nothing like it is recorded in the history of medicine. I started out at the first invitation of the College, after I had carefully looked into the movement, its fundamentals, its purposes, its aims, its spirit, and I saw that it was what the public needs, what the welfare

of the medical profession needs; that we must have right, genuine, true, sincere, earnest, unselfish hospitals. And that is what is coming; that is what is well started.

Any hospital that is genuinely worthy of being on the minimum standard list of the college is all that I have said, and those that are not gifted with those qualities are not worthy to be on the list and I hope will never get there. I want to leave, with renewed emphasis, the thought with all hospital people, that your hospital, no matter whether you have interns or not, if it is what it ought to be, is a real postgraduate school of medicine. It cannot be otherwise—even if you are only aiming at standardization, even if you are only trying to do your best and that best may be feeble and poor.

Before I go on, I want to congratulate the American Hospital Association. I can recall the words of Dr. John A. Hornsby to me here in Milwaukee after he had attended our second meeting. He said "Father, you have got a virile organization; and I thank you and God that you have come into existence, for I can feel the inspiration of your organization reaching into every activity of the American Hospital Association." I said, "Thank you, Doctor, I hope what you say is true, because my whole aim is to benefit the hospital situation of the continent in order that we may have better medicine, more scientific, more honest, more sincere care of the sick in all the hospitals of our continent." I congratulate you therefore on the splendid things that have gone on and the wonderful development and advancement that has occurred under the auspices of the American Hospital Association. I want to congratulate you particularly on this meeting tonight, a very unique gathering. Here you have the newly elected President-Elect of your own organization, and here you have an old President of the Catholic Hospital Association with perhaps one foot in the grave; and may I say without flattery that you have the Director General of the American College of Surgeons who has been back of this betterment of hospitals movement with his brains, with his energy, with his inflexible determination.

I can recall the time when some people said the College of Surgeons could not carry on its program; I can recall the time when some said with glee, I am sorry to say, "The American College of Surgeons is going to be obliged to drop this standardization movement;" but it is stronger today than it ever was, and thank God for it; thank yourselves; thank your organization; thank all those who have come into the movement, for if something like this had not happened, where would medicine be today? Where would our hospitals be today? Those of you who have some few years of experience in your hospitals, look back five, six, seven, eight, nine years ago—what were they? You know. Some few were good.

All were earnest, but what amount of groping and of inefficiency, that today looks inexcusable, permeated nearly every hospital on this continent. Why, I have heard men from Johns Hopkins, from the same platform where I spoke, say that even Johns Hopkins Hospital has benefited by this standardization. Of course they have. The Massachusetts General has. Any hospital on this continent has. The various Mount Sinai Hospitals have; and the many "Saint" hospitals of the Catholic Church conducted by the sisterhoods have. Now, why, ladies and gentlemen, why? Is it because of the things said by Dr. Franklin Martin? Yes, largely and in part, but I claim absolutely, after being with the movement from the beginning, that a great, strong, unfailing motive that has made this movement the great thing it is today, is the fact that justice is the fundamental thought of it all—justice to the patient first, last, and all the time; justice to the medical profession, justice to the medical man, justice to the individual, justice to the hospital and justice all the time to the nursing profession.

Now what do we mean by justice? That each gets his or her due. Now what is the due of the patient? The very best of scientific knowledge and care and scientific service that any individual or group of individuals has to give, regardless of whether that patient can pay or not. Our first and fundamental obligation to a patient is because he is a human being. If he is rich he can pay for extras, he can pay for luxuries, but if he is a human being, he has a right to all that is best and truest and necessary in scientific diagnosis and care and treatment. The hospital mind and the medical mind must get a clear and fast distinction between what is necessary, what is needful and what is a luxury, and what is an extra.

What is necessary? Everything in the way of diagnosis and help to diagnosis that the medical profession has agreed upon as sure and safe and reliable as a diagnostic procedure for a hospital; no rash experimentation; no rich or costly equipment that has not been proven to be necessary and that would be used by the staff or by the personnel of the hospital. Do not buy costly things that have not been proven and then lay a charge upon the average patient in the hospital; but if a thing is necessary, if any amount of laboratory investigation into his case is necessary to find out what is the matter with the patient, you owe it as a necessity to the patient—and try to get away from putting that down as an extra. I think there is a fundamental blunder being made today in all hospitals by reason of the extra laboratory charges, because, as soon as the medical mind and as soon as the hospital mind comes to see as necessities, these laboratory tests that are set down by the staff as necessary, and by the individual doctor who is reliable, and by

a group of them who have come together and said, "We must have such and such," then the patient is entitled to them whether he can pay or not, and the general charges of the hospital must be based upon that necessity.

But if some new device, helpful but not yet proven, costly in its nature, has come into use here and there and it is not yet proven that it is a necessity, put your extra charges there, put your extra charges on the elegant room, on the extra nurse or nurses, on all the luxuries and comfort that money can pay for; but put the necessities at a flat rate on all your beds and get the money for them to support your hospital properly in an up-to-date way and according to the ability of all to pay. That, to me, is the scientific basis of it all; that, to me, is justice to the patient, it is justice to the hospital, and it is justice to the medical profession in the matter of dollars and cents. Now just one or two words more. This justice is a mighty difficult thing to administer. We all love justice, we will all die for justice, but most of us, I am afraid, live and die pretty poor failures at administering justice to everybody. Every patient who comes into a hospital has a right, in justice, because he is a patient, because he, by that fact, appeals to the whole medical profession, the whole nursing profession, the whole community at large, "Here I am, sick, help me." Everybody that can, I claim, is obliged in justice to help him. If that is true of everybody, it is eminently true of the medical profession, it is true of the nursing profession, it is eminently true of the hospital profession. Why? Because they exist for the care of the sick; if there were no sick, there would be no medical profession, no hospital profession, there would be no nursing profession. If the sick are the reason for the existence of the medical profession, the reason for the existence of the nursing profession and of the hospital profession, then, in the name of God, every sick person has the right to what any and all in any locality can furnish. Therefore staff organization, therefore consultation, therefore harmony, therefore cooperation, therefore teamwork are the expression of the justice of this movement amongst hospitals, and therefore I always bow with honor and respect to the leader of the American hospitals, of the American College of Surgeons and any representative of it. They have inaugurated a movement the greatness and depth and reach of which they, I fear, did not understand and realize in the beginning.

The expenses for hospital care and highly scientific medical care, diagnosis and treatment, are rising, rising so high that if the individual has to pay for it, he cannot get it—in too large a number. Therefore, let this American Hospital Association some time or other think that problem over. It is in many minds; much is being said about it and much is being written about it, but it is such an

organization as this that must work to its solution. There is an injustice coming upon the respectable middle class in the matter of the scientific care of medicine, and that is one of the difficult problems in our hospitals; that is one of the reasons, too, why I want to see all laboratory service that is necessary put on a flat rate. The money must come from some source, either from the individual rich or from the county, city, or state treasuries, or from the treasuries of religious bodies. It had better come from all, and with just a little care and discrimination, it will not be hard for hospitals to establish a policy which will give them a large enough return on their high grade service rendered.

Don't admit any humbug in your hospital; don't admit any camouflage, any smoke screen; call for the truth always from everybody, and then you will find how many years it is going to take to get into your hospital and into the lives and souls of all you doctors and nurses and hospital managers, the full meaning of this wonderful, simple, innocent looking minimum standard.

CHAIRMAN DR. OCHSNER: The Working Principles of Hospital Standardization, "by the man who knows," Dr. Malcolm T. MacEachern, Associate Director, American College of Surgeons—Hospital Activities.

DR. M. T. MACEACHERN: Chicago, Ill.: I am going to be very brief. There are two or three speakers to follow. You are more particularly interested in some of the problems in this movement. You are all familiar with what it is accomplishing. A need for making our hospitals more efficient was discovered, a way was worked out to meet this need, a minimum standard was formulated, a practical method adopted to present this standard, and thus we have a great movement, permanent in nature and ever increasing in momentum and influence. It is a voluntary movement at no cost to the hospitals.

The principles of hospital standardization are all familiar to you. Briefly, they are: (1) An organized, competent, ethical staff, which meets at least once a month to analyze the professional work of the hospital and appraise its results. (2) Complete case records on all cases treated in the hospital, scientifically and honestly made and systematically filed after the patient leaves the hospital. (3) Diagnostic and therapeutic departments such as clinical laboratory and X-ray, under competent supervision.

Three great principles are necessary in the genuine application of the requirements of hospital standardization. These are: Firstly—the governing body, the hospital staff and the medical staff—the three great hospital groups—must earnestly want hospital standardization. They must go into it with sincerity, otherwise

it will fail. Secondly—These three groups must cooperate well together, for it takes them all to bring hospital standardization about in its fullest sense. Thirdly—There must be leadership in each of the above groups.

Recently at the College I made an analysis of one hundred hospitals of 100 beds and over, failing to meet the minimum standard after six years' opportunity. Fifty-seven per cent of these were deficient in staff organization. They had, in most cases, some kind of organization, more or less perfunctory in character—the "come, sit and go" type, as Mr. Jolly describes so well. Ninety-six per cent of these hospitals lacked proper analysis of clinical work. Ninety-seven per cent of this group had no case records. Seventy-three per cent had failed to take any action against fee splitting. Fifty-two per cent were deficient in laboratory service, either not having an adequate service available or not properly supervised. Laboratories lacking proper direction are dangerous. In many instances technicians were not properly supervised and reports not dependable. Fifty-five per cent failed to meet the X-ray standard, inasmuch as a number had no service available, while others lacked supervision or direction.

Case records and staff conferences appear to give the greatest difficulties in hospitals today.

Now, what do we want for a good staff conference?

(1) Leadership that will overcome local factions and jealousies and get the doctors together in group study of their results. It is often difficult to get doctors together to talk over their experiences, as one is afraid the other will tell something about him outside of the staff conference. The proceedings of such a meeting must be kept confidential to that group.

(2) A good chairman, a live secretary, a regular time and place to meet and a minute book to record the discussions in is all very necessary in the conduct of the staff conference.

(3) An interesting agenda covering an analysis of the work since last meeting, and this to include a study of patients in the hospital as well as those discharged. In addition, constructive suggestions should be made, if necessary, for the improvement of the professional services rendered.

Several hospitals have staff luncheons or dinners when they come together to discuss the work. This practice promotes better fellowship and *esprit de corps*, but should not be used as an inducement to attend the meeting.

The entire staff problem is a difficult one in many institutions and requires continuous and persistent effort. Doctors, however,

are almost everywhere recognizing the value of "getting together" for such a real and worthy purpose.

In the consideration of efficient case records in our hospitals today much the same can be said of this phase as we have just mentioned regarding the staff conference. There must be leadership, a well equipped record department and competent personnel. I like to speak of the record clerk rather as the historian or record librarian. There must be a convenient place in the ward where the records can be produced and suitable forms available, as best determined by each individual hospital. The American College of Surgeons may suggest to you certain forms that have been found very useful, but you are expected to select your own type best suited to your local conditions and acceptable to the staff.

The doctor in charge of the patient must be held responsible for the securing and supervising of the record. To secure this record he may adopt any one of the following methods: (a) Write it himself; (b) Have the intern write it; (c) Dictate it to a record clerk; (d) Through the use of the dictaphone and a clerk to transcribe it. These are the four chief methods in use. Regardless of what method is adopted, the doctor of the case should be responsible for the supervision of the record, making sure it is complete and of good quality. I find that in some hospitals nurses have been taught to secure the preliminary history of patients and the doctor adds his findings from physical examination, and supervises the part of the history the nurse writes. While it is not a good thing to load our nurses up with more work than they have at present, yet there may be an advantage in such a method. The nurse having an opportunity to secure the history becomes better acquainted with her patient physically and psychologically and at the same time gathers clinical information that will not only augment her knowledge but also her interest in that particular patient. There must be created in your hospital the habit of getting good records. You must keep working away on these records to make them better and better, for there is much opportunity for improvement in most records today.

The case record of every patient should be written up as quickly as possible after admission. Let the patient have a few minutes to become mentally adjusted to the new surroundings. One of the great difficulties of the present day in case recording is what I call the delayed writing of them. In many instances we find the record written up about the time the patient is leaving or afterwards. Such case recording is merely an attempt to deceive and possibly get by inspection. This is one factor which is keeping many hospitals off the approved list today.

We must attach greater importance to the nurse's part in the case record, especially to what is commonly known as nurse's notes. Some of you may think this part of the record is of very little consequence; on the contrary, it is of vast importance. The nurse is the third eye of the doctor, constantly on the patient for twenty-four hours. The doctor makes his visit once or twice a day, just stays a few minutes. He generally looks through the nurse's notes to see what has happened since his last visit. Not infrequently, indeed, is he to some extent influenced and guided in his treatment by these observations. How important it is, therefore, that these notes be correct. Nurses in training, in my opinion, should be given a course in sociology and observation. They should be taught in training schools to make their observations accurately and to express them comprehensively. In the examination of 44,000 case records in an institution 38,000 were deficient in the quality of nurses' notes. Why was this? Because the nurses in this hospital, like a great many more at that time, were not being taught how to observe accurately and express themselves comprehensively. The statement, "a pain in the abdomen," is vague, indefinite and useless to the doctor. A symptom or pain expressed as follows is invaluable to the doctor, "a pain in the right lower quadrant in the region of the appendix, coming at intervals and traveling towards the stomach." "A pain in the chest" is also a useless description, but "a pain in the right side of the chest in line with the axilla, occurring after coughing" is of great value to the doctor in visualizing his case. Therefore, hospital superintendents and training school instructors, please teach your nurses in training to observe accurately and express themselves comprehensively.

Every hospital must be supplied with the necessary diagnostic and therapeutic appliances. The minimum standard particularly requests that each hospital provide laboratory and X-ray service. Every institution must be prepared to do all the tests that are immediately necessary for the making or confirming of a diagnosis. Every hospital must have a service which embraces bacteriological, serological and pathological work. Technicians today working in laboratories are giving an excellent service. A laboratory, however, must be under competent direction and this can only be secured through the services of a medical man. Indeed, it is quite unfair to expect the technician to assume responsibility of the laboratory. A suitable room or rooms, complete equipment, competent personnel and efficient supervision is necessary. Records of all work done must be kept in the department and a duplicate sent to the patient's file. The question of laboratory charges should not in any way embarrass the service through limitation of work asked

for and performed. There are four different methods used by hospitals in making these charges: first, through a schedule of charges at so much per test or examination, approved by the hospital management; second, a flat rate of \$2, \$3 or \$5 per patient for all laboratory work required; third, the addition of a few cents to the per diem rate ordinarily charged the patient each day; fourth, a free service such as would come from a state, county, or endowed laboratory. A leading pathologist the other day suggested to me a compromise method, which I might call fifth, the charging of a flat rate for all patients, to include such routine examinations as every patient should have, such as urinalysis, blood count, Wassermann and Smears, but a charge of so much per test or examination for anything else that was asked.

Like the laboratory, the X-ray service, consisting of radiographic and fluoroscopic work, must be available for all cases. Here, also, the technician plays an important role in the technical work. The interpretation can only be done correctly by a trained medical radiologist. The X-ray laboratory should be under the supervision of a doctor.

In conclusion, just let me touch briefly on a few outstanding facts of the Hospital Standardization movement. In 1923 the hospital surveyors in sixty months' time travelled over 75,000 miles in the examination of 1,786 hospitals of the United States and Canada. These hospitals contain an aggregate of 237,046 patients, and, during the year, cared for approximately 4,758,920 patients. This means almost 72,000,000 days' treatment. Of the 1,786 hospitals 1,176 or 65.9 per cent met the standard. A summary for the year is as follows:

Hospitals of 100 Beds and Over			
	Hospitals Surveyed	Hospitals Approved	Percentage
United States	806	697	86.5
Canada	64	52	81.3
Total	870	749	86.1
Hospitals 50 to 100 Beds			
	Hospitals Surveyed	Hospitals Approved	Percentage
United States	837	382	45.6
Canada	79	45	57.7
Total	916	427	46.7
Total hospitals surveyed.....	1,786		
Total hospitals approved.....	1,176		
Total percentage approved.....	65.9		

AMERICAN HOSPITAL ASSOCIATION

The growth of the movement during the six years of its existence, as shown by the following figures, is most interesting:

100 Beds and Over

Year	Hospitals Surveyed	Hospitals Approved	Percentage
1918	692	89	12.9
1919	692	198	28.6
1920	692	407	58.8
1921	761	673	75.3
1922	812	677	83.4
1923	870	749	86.1
50 to 100 Beds			
1922	812	335	41.3
1923	916	427	46.7

The success of the movement is based on the fact that it aims at facts, facts found only by personal visit to the hospital. This work carried on by the college is the opportunity which it has to assist you in your hospital service, to lay before all institutions a standard of service to the patient. The perspective or objective of your work, of our work and that of every other organization connected directly or indirectly with hospitals, is that of service. The standardization movement aims at focusing the accumulative services of your institution entirely on the patient. The minute we lose sight of this objective our work fails.

What about the next year, 1924? The seventh survey commences January 7th, 1924. The visitor will tell you before he leaves whether or not your institution fails to meet the standard and why. He will help you to bring it up to that standard if you so desire. On receipt of the report at the College, you will get a follow-up letter. Do not be annoyed if you receive one of these letters but just remember it is meant for constructive criticism. This year we will background our movement with more service—a service that will assist you in improving your diagnostic facilities, your treatment facilities, your staff organization, or your records, and will advise you in your difficulties. A Hospital Information Bureau has been opened to give a better and broader service. A number of committees are at work as, for instance, the Committee on the Standardization of Laboratories, a Committee on the Standardization of Fixtures, and other things of vital importance to the hospital. All this is valuable in giving you information on how to improve the efficiency of your hospital and thus effect economies and do better work. All the hospitals that are not on the list this year we expect to be on next year. All the hospitals on the list this year with an asterisk must try and have it removed before our

next announcement. Do not think the asterisk means an honor mark, as one hospital wrote to another recently asking what they could do to receive honorable mention by the asterisk (laughter). The College wants you to feel that it is absolutely and entirely a service organization to the hospitals. It is anxious to work in the closest cooperation with all allied organizations such as this Association and others. We have all worked together well in the past and will continue to do so in the future. Let us endeavor to stimulate the best type of hospital development and service that can be proclaimed anywhere in the whole world.

A SUPERINTENDENT'S EXPERIENCE IN STANDARDIZING A HOSPITAL

By Robert Jolly,
Superintendent Baptist Hospital, Houston, Texas

After five years of trial of the minimum standard in the majority of the hospitals of this country, it ought not to be necessary to say a word in its behalf, but so long as there is a single hospital out of the fold of standardized hospitals, the gospel of standardization must be preached—preached until the last sinner has been brought in.

Of the more than 1,600 hospitals of over fifty-bed capacity, nearly 90 per cent are already in and methinks it is not going to be such a difficult task to convert the remainder.

They say the first thing a sinner must do to become converted is to become convicted of his shortcomings, and that is what we who are now standardized did, and what the others must do. The Billy Sunday of hospital standardization is Dr. Franklin H. Martin and his evangelistic party is the American College of Surgeons. Without them this campaign for standardization *might* some day have been inaugurated, but it never could have been done better and with such complete satisfaction and in so short a time.

The first step of the campaign was the publication in the press of the country of the names of those hospitals that were already being operated with the degree of efficiency demanded in the Minimum Standard. When I saw in the daily paper that our hospital was not on the list, conviction knocked at our door the first time. When a few minutes later my associates began to read and discuss, conviction became deeper and more widespread. When later in the day we began to hear from the staff, we began to groan, and by morning, when the whole city had read and was talking, we were on the mourners' bench seeking the light.

The next step in the campaign was the sending out of inspec-

tors to look over the work of the hospitals and point out their shortcomings and make suggestions. Well do I remember the morning when, like a bolt out of a clear sky, I received a phone call from one of the gentlemen, asking if he might come out and visit us.

I maintained our standard of hospitality even though we had not attained the standard of hospitalization, but I confess I would rather have received the tax collector than that visitor. Before I had time to pass the word around he was in my office; but the man that I thought would be a sort of prosecuting attorney turned out to be a friendly visitor and advisor, and I have been told by many superintendents that their visitors carried out the best traditions of the College of Surgeons and established friendship at once. I already knew where we were deficient and I tried to steer that fellow away from those places, but he had a nose a yard long. Most of you were in the same box I was in, so you need not laugh at me. First of all I took him to our brand new delivery room, of which we were very proud, but he merely glimpsed it and asked to see the laboratory, one of the places I was ashamed for him to see. I managed to lead him to a new operating room we had just opened, but he took one look and said, "Let me see the record room." Now, that was another place I did not want him to see and so I led him to our new X-ray department. He seemed somewhat interested in this, but seemed not to be able to get his mind off the record room and laboratory. His was the worst single tracked mind I ever saw. Finally, seeing he never would be happy until he saw those two departments and knowing I could not be any unhappier, I led him to our so called record room, in which we had no recorder and no records worth the paper used. I never had anyone on so short acquaintance so unbosom himself, but I managed to listen without committing murder and promised that I would bring this department up at once, and we did, thanks to the Minimum Standard. Then I meekly led him to our laboratory, which was stuck away in a small corner, with an equipment of one microscope and a dozen test tubes and as many slides. I think by that time he was "all in" and I know I was. He gave one look, and then a snort, and turning to me said "Why, you haven't any laboratory!" I told him I really felt that way myself and was so glad we could agree on something. But I told him that if he would come back a year hence we would show him the best laboratory in Texas.

He did not come back, but one of his associates did, and I had the pleasure of hearing him say that he had not seen a better laboratory anywhere.

Well, we got hospital religion that day and just as that visit converted our hospital family, just so it did yours, and I am really testifying for the whole bunch of converts. From that day we began to grow in grace and don't you ever believe that the public isn't watching you and us as we grow, and don't think for a moment that the list of approved hospitals is not read very closely the day it is released by the American College of Surgeons. You can't fool the public very long, for there is too much publicity these days for the people to remain ignorant of the difference between the old boarding house for the sick and the standardized hospitals where they are protected in every way. Don't you think, either, that interns and prospective student nurses are not on the alert, for they know what it means to receive a diploma from a standardized hospital. And no doctor these days is proud of his name on the staff of a hospital that the world knows is not approved. So if your hospital has not attained the Minimum Standard, don't be surprised if it is shunned. No one, be he patient or relative, can be blamed for wanting protection, and the Minimum Standard spells protection.

No plan has ever been evolved that has meant so much to the public (whether they know it or not) and to those who operate a hospital. It has been a wonderful instrument in the hands of superintendents for bringing about the cooperation that is needed to improve the hospitals, and the whole nation is under a lasting debt of gratitude to Dr. Martin and the College for their contribution.

Pardon a crude illustration of the way it has helped the superintendent to improve his hospital: Look at your hand. Call the thumb the superintendent and the fingers consecutively the patient, staff, trustees and associates of the superintendent. Just as the thumb cooperates with each finger, so the superintendent must cooperate with each group, and also get the groups to cooperate with each other. The superintendent and three of these groups are set to the task of providing the very best protection and service to the patient and, of course, with the patient's cooperation. Never before have they all combined to see that the best laboratory and X-ray facilities are provided for the patient and that adequate records are prepared before, during and after treatment—medical or surgical.

Many times do we have patients complain because these things are thrust upon them, but a word of explanation and an appeal to the patient's pride in the fact that he is in a standard hospital elicits his hearty cooperation—in the face of the fact, too, that his hospital bill may be more than if he were in a hospital

that did not surround him with these protections. It is no small thing to a patient to know that the hospital is going to see to it that he is not operated upon unless he really needs it, and then not unless he is able to undergo the same.

Then with the Minimum Standard the superintendent finds his task easier in getting cooperation from his staff. Staff meetings in many of our hospitals have been revolutionized and what were once little better than social clubs have become scientific clearing houses for the benefit of the patients and the doctors. It has brought many to realize that there must be no stars, but team work, and that each must have the benefit of the judgment of all the others. It has taught them also that the man who will not keep good records must be removed, for the benefit of the hospital, but primarily for the benefit of the patient. Since the Standard has been attained many superintendents have been invited to sit in the staff meetings, and (would you believe it?) actually to take part. Be it said to the credit of the men on most of the staffs that they have, without a moment's hesitation, set in motion plans for the improvement of the quality of work and for weeding out those who would not cooperate to the end.

The trustees also have seen a great light and are learning that they are not just a finance committee, but are actually responsible for everything that goes on in a hospital. They are learning that it makes a great difference who practices in their hospitals, and that theirs is the responsibility if an incompetent persists in plying his trade. They have learned also that in the past perhaps there have been unnecessary operations, and being for the most part conscientious business men they want to know why and how to stop it, and they take steps to stop it, much to the discomfiture of some. It is gratifying to see the pride they are exhibiting in the fact that their hospitals are approved, and nothing on earth will ever be able to induce them to go back to the old way of operating before the birth of the Minimum Standard.

And lastly, the Minimum Standard has put a new spirit into the associates of the superintendent. No less than he, do they take pride in the approval placed upon the hospital, and the family spirit that has been stimulated in our hospital has been marvelous to behold. Where once one was ready to blame another, or to work alone, there is now fellowship and harmony, and the weekly meetings of the employees now so prevalent are indicative of the interest engendered by the standardization program. A new interest in and a consideration for the patient is a direct result of the program, and surely this alone is reward enough.

In our own weekly meetings—at which a prize is given for the

best suggestion for the betterment of the hospital—it is interesting to see how each problem is solved in the light of the minimum requirements, and what a keen desire is shown that nothing shall conflict but rather work together with the Minimum Standard.

And so in hundreds of hospitals each group has been stimulated to do a little better for the patient and to help each of the other groups to perform their functions, to the end that the patient may come to the hospital unafraid and with complete faith that the superintendent and the four groups of fellow workers will do their best to send him away normal.

Dr. MacEachern takes the chair.

CHAIRMAN MACEACHERN: We have three five-minute speakers on the program. We will now hear from Major B. E. Hedding.

MAJOR B. E. HEDDING: Tuberculosis Annex of the National Home for Disabled Volunteer Soldiers, National Home, Wisconsin:

I know you are feeling sorry for me, having to follow that man in a discussion. I have known many people well named, but never so apropos as in this instance—Bob Jolly. However, before his talk I had decided it would be presumption on my part to really try to discuss what we have heard tonight. But I thought if you would bear with me for about two minutes, it might be helpful to tell you what your Government has done to try to raise the standard in one of our hospitals.

Some of us who have had contact with the soldier and the ex-service man appreciate the effect his war service had on him, his attitude to his particular disease; and the difficulties arising therefrom in endeavoring to give him the proper treatment. We also know the problem of finding proper hospitals to do this in.

While it is true these difficulties have not been completely solved, and in the opinion of some the Government has not gotten very far, I am of the opinion that under the circumstances a great deal has been accomplished.

The White Committee, under appointment by the President of the United States, decided to spend some of your money in raising the standard in government hospitals. After much interviewing and many meetings with men of broad experience in the treatment of pulmonary tuberculosis, they decided on what they believe to be the ideal hospital for the treatment of this disease and have placed one in the city of Milwaukee under the direction of the National Military Home Service.

We think this the finest hospital for the treatment of pulmonary tuberculosis in the world, from the standpoint of physical arrangement and equipment. In this hospital is a complete research laboratory, a theatre, a billiard and pool hall, and a large thor-

oughly equipped occupational therapy department; all this being curative in the same sense as the cure porches in the wards.

In this hospital a patient on admission is immediately placed in the receiving ward, where he is under observation for a minimum period of seven days. During this observation period all routine examinations are made, namely: complete physical, chest, sputum and other laboratory findings, X-ray, eye, ear, nose, throat and dental. After the completion of these routine examinations, the diagnosis is made and the patient placed in a proper ward in the hospital, being classified according to the amount of pulmonary involvement. Many patients admitted have been under so-called treatment for from two and one-half to three years and have never spent one day in bed, even for the purpose of observation. Another change has been basing the pass privilege on the exact physical condition and not on his length of stay in the hospital, his family troubles, or many other outside circumstances.

Now I want to show in just a few minutes the reaction of this higher standardization. We are not six months old; in this six months there have been admitted to the hospital about five hundred patients, all of whom have been examined, diagnosed and classified during that period of time. Of this number, we have today in the hospital two hundred seventy-two patients. And WHY? Because of the five hundred, there were two hundred seventy-two who were really in earnest as to their treatment and wanted to get well of pulmonary tuberculosis; and they are with us.

Not later than this morning a patient in the hospital visited me and inquired what disposition was to be made of another patient who persisted in obstructing his treatment. When told that this patient would not be permitted to stay in the hospital, he said, "Very well, we are satisfied. A few men in this hospital are not going to interfere with two hundred fifty more in getting their treatment."

This six months' experience has convinced me that in a very few months the six hundred beds available in our hospital will be occupied by men wanting to get well and ready to take advantage of real sanatorium treatment in a government hospital.

CHAIRMAN MACEachern: We will now listen to Mr. E. S. Gilmore, of Wesley Memorial Hospital, Chicago.

MR. E. S. GILMORE: I would like to take just about two minutes of your time to talk about hospital standardization. As I see it, the two big features are an organized staff and case records. The case records ought to be accurate and complete; their value is first to the doctor; he will appreciate the accuracy and completeness of those records if, later, he is called into court and asked to

give some good reason why he treated that patient as he did and why the results were what they were. Another value is their medicinal value in the years to come; other men will study these records and learn what to do and what not to do. Now I remember well when the treatment for pneumonia was to put a person in a room, button up the windows, close the door, stuff up the keyhole, and if there were a register in the room, close that up, too, take away from the patient all the air they possibly could. Now, they put the patient outdoors if they can. I remember well also when the treatment for typhoid fever required that the patient must not have any water, or at least the minimum amount of water, and now they soak him in it. The change has come about through the study of records, and some of the things that the doctors are doing now will seem just as much out of place 25 years from now; that is one of the great values of records.

As to the organization of the staff—a staff that is not organized does not amount to much; they can do better work if they are organized. I have often thought that the hospital would be very fortunate if the doctors' records were checked up with the same earnestness and carefulness that the superintendent's records are checked. If a superintendent is out of balance a dollar, the auditor reports it to the board of trustees; the doctors may be out of balance ten or twelve or fifteen lives, but nobody knows it except the doctors themselves, for a life is only a life, but a dollar is a dollar.

I am not so much interested in the things that the College of Surgeons has laid down as a standard; they are all good, but it won't be long before all the hospitals will be living up to these standards. That, to my mind, is the great value of the American College of Surgeons, for when the hospitals live up to the minimum requirements that they now have, they undoubtedly will raise the minimum requirements and demand that hospitals live up to other things. In other words, they are giving us ideals, and ideals are what hospitals, as well as everything else, need. I do not know just what the future ideals will be, but there is one that I would like to speak of. I hope that in the not far distant future the American College of Surgeons can bring it about, probably with the legislation necessary, that no man will be permitted to operate upon another for compensation until he has spent a reasonable time under the guidance and instruction of an expert surgeon.

CHAIRMAN MACEachern: I have much pleasure in introducing to you Dr. C. S. Woods, President of the Protestant Hospital Association of America.

DR. C. S. Woods: I point out to you that there are at least three things that have not been definitely emphasized this evening.

The first is this: The American College of Surgeons undertook to do a very difficult piece of work, and the College has done it remarkably well. We do not need to be convinced this evening of the value of standardization of hospitals. There certainly is not an administrator here of any experience who does not believe that the minimum standard is not only reasonable, but the least that could be required of any good institution. However, the College of Surgeons began its work among the large hospitals and they could do the work which the College required relatively easy. My sympathy this evening, Mr. Director General, is with the hospital which has from 25 to 50 beds. You who are administrators in such institutions I am sure are having your difficulties in convincing your boards and your attending physicians and surgeons that it is just as important for your institution to have well written records and good laboratory work, as it is for the largest hospital in the country. I hope therefore, Dr. MacEachern, that you will be particularly tender with and helpful to the small hospitals. We who have larger institutions should, if possible, extend our help to the smaller ones, particularly in our own communities.

The second thing is this: I undertake to say that records are yet rather poorly written. If you will take the pains to read them, you will find that the records are often practically worthless. This means, therefore, that we must not only have records, but we must have well written records.

The third thing is this: When we have our records well written, what are we going to do with them? If the American College of Surgeons and the hospitals succeed in getting good records, we must do something with them. They must be useful. If you will pardon me for doing so, let me ask you who have good records in your hospitals to begin some such thing as this with your house staff and your attending staff: get them to choose subjects such as skull fractures or pyloric stenosis in children, and hold conferences upon those subjects, using the records as the material for discussion. I dare say you will have some interesting revelations.

CHAIRMAN MACEachERN: We are within just six minutes of closing time and we have two gentlemen who consented to close the meeting tonight. I want to introduce Dr. F. P. Miller, of El Paso, and after him, Dr. A. C. Scott, of Temple. Each will speak three minutes. We are showing you two real staff leaders; they are not superintendents, but they are chiefs of staff in their own hospitals.

DR. MILLER, of El Paso, Texas: You have been told several times tonight that this movement has for its background the welfare and care of the patient, and we aim to emphasize this, we ask that you focus your efforts upon the patient in the standardization program. It is a success because it has succeeded; therefore, it must be right. When 86 per cent of your hospitals are willing to abide by it, when the staffs and the boards of managers and superintendents of 86 per cent of the hospitals have decided on it, it seems likely that it is sufficient in all respects. It can be defended in any court or forum. At no place do we find anyone trying to offer any argument against it. Some do try to sidestep it in some of its minor particulars, but almost everywhere we can find able defense for it and nothing against it.

The chief enemies that prevent its perfection in making it the ideal that these men have conceived are apathy, indifference and selfishness; apathy in regard to the correctness and completeness of the records of which these men have spoken. Just hitting a line here and a line there is not a complete record; to say "past history, none," is not a complete record. I just want to give you a little example of a past history that was given as "none." One of my best friends, who was not exactly warm for standardization at first, but who was willing to hit at it now and then, recorded for one of his patients with a pain in the right side that the "past history" was "none." At the operation the little vermiform appendix was removed and he went home. But the "past history" kept knocking, knocking all night long. The nurse made some good records; there was blood in the urine; next morning the doctor came and found that the case did have a "past history," but he was afraid of this past history and gave the patient a dose of morphine, but the past history kept on knocking; then we had to do a little pussyfooting in getting a stone out of the ureter without making too much noise about it.

The plan of standardization of hospitals is not half as long as the ten commandments and not as hard to keep; it does not cost much beside effort and really saves time and money in the end. Remember that the staff is no stronger than its weakest link; the weakest member determines the character of the staff and he is the man we are all trying to help. We want to surround him with all our experience and knowledge. When hospital boards have faith in the creed of hospital standardization, then it will be what we believe they intended it should be, a mighty and beneficial force in this community.

CHAIRMAN MACEachern: Dr. A. C. Scott, of Scott and White Hospital, Temple, Texas, an institution famous for teamwork.

DR. A. C. SCOTT: In the standardization of a hospital it seems to me that the one consideration must be the safety of the patient and, to accomplish this, the most important thing is the cooperation of everyone from the time they enter the front door until they get to the boiler room, or from the ambulance entrance to the operating room or the most remote bedroom in the institution. In the last analysis, two persons are responsible for the average general hospital. Of course in private hospitals the responsibility for the safety of the patient must eventually fall on one person, but, as a general rule, two persons shoulder the responsibility and they are the superintendent and the physician or surgeon who is chosen as the head of the staff. These two gentlemen must of necessity work in perfect unison, and safety cannot be obtained in a hospital without perfect coordination and cooperation of these two individuals. Safety in the hospital, then, depends upon teamwork, and teamwork must extend from one end of the institution through to the other. We are very proud of the fact that we began our teamwork some 31 years ago in a little twenty bed railway hospital, and we have continued to develop it until we find that teamwork can be applied to every department of the institution. You have often heard people speak of the operating room of the hospital as the heart of the hospital and some think of the kitchen as the heart of the hospital; others think of the financial office as the heart of the hospital, but, my friends, the real heart of the hospital, that which tells what a hospital is in truth, is the record room.

The meeting then adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-Fifth Annual Convention, Milwaukee, Wisconsin,
October 30, 1923, 9:30 a. m., President Bacon
in the chair

GENERAL SESSION

REPORT OF THE COMMITTEE ON CANNED FRUITS AND VEGETABLES

Guy J. Clark, Chairman, Cleveland Hospital Council, Cleveland, O.

The Committee on Canned Fruits and Vegetables wishes the exhibit which they make to be regarded as their report, rather than the few words which we have to say in this written report.

The fruits which we will show in this exhibit have been submitted by the four large canning sections of the country which have adopted standard specifications for the packing of fruits by members of their associations.

- (1) The Cannerymen's League of California,
- (2) Northwest Cannerymen's Association,
- (3) Michigan Cannerymen's Association,
- (4) The Association of New York Cannerymen, Inc.

To the best of our knowledge and of anyone connected with the National Cannerymen's Association or with the four associations listed above, this is the first time an exhibit of all of the grades of fruits as packed by these associations has ever been exhibited at one time and place.

It is the opinion of your Committee that if this exhibit is thoroughly studied, it will be a very definite advantage to hospital people in acquainting themselves with the various grades of fruits that are packed and will enable them to specify the grades of fruit which they desire to purchase for the requirements of their institution with a much greater degree of intelligence than they have ever been able to before. It will be of further service to them in securing a greater amount of competition on their purchases.

In presenting this exhibit we are trying to do so in such a simple manner that everyone can clearly see the difference in the grades and can understand them, as we will label each container distinctly so that the person making the inspection can carry in his own mind the grade of fruit which they believe will serve their purpose and meet their demands as they see them in their own institution.

The Committee will present to you, as you visit the booth, a printed copy of the specifications as adopted by these associations and it is to be hoped that you will keep them for future reference. We would suggest that you check, in the booklets of standard specifications, the grade or grades of fruit which you desire to purchase.

Please do not be confused by the names which have been adopted by the various canning associations as they are merely terms by which they express their grades as grown in their sections; but all of them are intended to represent the 1st, 2nd, 3rd, 4th and 5th grades of their fruits, together with the degree of syrup which represents this grade.

The vegetable exhibit will consist of various kinds of vegetables and the different grades of each packed by members of the Association of New York Cannerymen and the Michigan Cannerymen's Association. Although these samples will not represent any grades which are adopted as a standard specification, we do feel that this exhibit will be a help inasmuch as it will show the various grades which are packed, although they do vary considerably in different canning sections.

The Committee will make two exhibits of fruits and two exhibits of vegetables, in order to give those who are not present at the convention for the full time an opportunity to see the exhibit of each. On Tuesday we will exhibit fruits, on Wednesday vegetables, fruits again on Thursday and vegetables on Friday.

The Committee wishes everyone to understand that this exhibit is absolutely non-commercial. We will be very glad to attempt to answer any questions that we can regarding the grades of fruits and vegetables to be used, but under no circumstances will we voice an opinion as to which section you should specify in ordering your supplies.

In outlining our plan to the various canning sections which have submitted the samples, they were assured that we would keep this exhibit non-commercial in every respect.

We are greatly indebted to the secretaries of each of the canning associations for the courtesy and help which they extended to us in getting together the samples which we are submitting here. We are also indebted to the Secretary of the National Cannerymen's Association, who advised us on several occasions regarding the presenting of this exhibit.

Respectfully submitted,

Guy J. Clark, Chairman

Henry J. Southmayd

MR. GUY J. CLARK: We feel that we can show you and teach you more in 15 minutes about canned fruits and vegetables if you will visit the booth than you can personally find out in a period of five years from your own experience, because you will not likely have the opportunity again to see the various grades together at one time. It has never been shown before. The Canners' Association themselves have never had an exhibit of this kind.

SECOND REPORT OF THE COMMITTEE ON GAUZE RENOVATION AND STANDARDIZED DRESSINGS

In instituting gauze renovation in a hospital, the superintendent very naturally must answer many questions as to the demands made by the procedure. These questions cover such items as space, location, service needs, equipment, personnel, reserve supply of material, work routing, layout, etc. In order to furnish in the most easily accessible way a groundwork over which the hospital executive may build up his or her organization, these items are discussed very briefly under these heads.

In these discussions prices are not given, since there is such a variation in the requirements in various hospitals and in the individual preferences of executives as to type and manufacturer. There is space provided in the listing of equipment in the bulletin so that any executive interested in starting gauze renovation can record price quotations submitted by the various manufacturers of equipment. The convention exhibit offers a very excellent opportunity for seeing personally the various makes of apparatus and for obtaining comparative prices. A full list of price quotations on the apparatus required should give anyone interested fairly complete data as to the cost of initiating gauze renovation.

For purposes of convenience the tabulation is made out on the basis of the actual requirements of a hospital of about three hundred beds. These requirements are based on the actual needs as have arisen in this hospital where gauze renovation is a regular routine procedure. It is an actual figure, not an estimate.

There are certain requirements that are common to a gauze room no matter what the size of the hospital, if the room is to run most efficiently and economically.

1. Location. The transportation incident to gauze renovation is largely influenced by location. The gauze room supplies the wards and the operating rooms and is served by the laundry, so should be if possible located so as to necessitate the minimum of handling. The ideal location would be some place between the wards and the laundry, preferably nearer the former.

2. Steam supply. The gauze room must be where steam is available for the sterilizer and dryers. This requires a pressure of at least 20 pounds, hence must be near a live steam line.

3. Heat, light, ventilation and dryness. The gauze room must possess all these if difficulties in labor turnover are to be avoided. The gauze being damp while it is being pulled would, of course, be very uncomfortable in a cold room. There must be plenty of light, since employees resent working in a dark place and the gauze room is in operation most of the day. The same reasons hold for the other two requirements. Gauze pulling is a knack and consequently a labor turnover that is excessive reduces very materially the advantage of gauze renovation.

FOR A HOSPITAL OF ABOUT 300 BEDS.

The following list indicates the equipment needs for one hospital of 300 beds that is renovating gauze at present: (This hospital had 60,000 days' treatment surgical out of a total of 90,000 days' treatment with a total of 8,333 operations.)

1. Space.

Two rooms, one 12 x 30 and one 12 x 15. (In this particular hospital the preparation of saline by means of the saline machine is part of the gauze room activities.)

2. Bins, cupboards, etc. (These can in most cases be made by the hospital's own workmen. The cost can be computed on the basis of time and materials.)

- A. Bin for drums, 4 compartments, $1\frac{1}{2} \times 1\frac{1}{2} \times 2$ feet.
- B. Bin for extra supplies, 2 compartments, $1\frac{1}{2} \times 2 \times 3$ feet.
- C. Bin for absorbent pads, $2\frac{1}{2} \times 3 \times 4$ feet.
- D. Bin for small, made up supplies, eleven compartments, each $14 \times 24 \times 18$ inches, raised about six inches from the floor for dryness.
- E. Cupboard for sewed operating room supplies.
- F. Cupboard for gauze supply bolts (3 shelves each).
- G. Cupboard for cut gauze supply, $2\frac{1}{2} \times 5 \times 3$ feet.
- H. Cupboard for small sterile supplies, $2\frac{1}{2} \times 5 \times 3$ feet.
- I. Cupboard for bed pads, wrappers and bags.
- J. Five cupboards, $18 \times 18 \times 54$ inches, for supplies and lockers.
- K. Drawers and bins for supplies.

3. Tables and desk, chairs.
 - A. Table for cutting gauze, 7 x 3 x 3 feet high.
 - B. Three tables on which to sort washed gauze, each $7\frac{1}{2} \times 2\frac{1}{2} \times 3$ feet.
 - C. Table on which to sort wrappers, 3 x 4 x $2\frac{1}{2}$ feet.
 - D. Desk for person in charge of gauze room.
 - E. Five chairs and stools.
 - F. Boards for pulling gauze. A plain board with a row of thin nails along the upper edge. Gauze is stretched over the nails and pulled straight.
4. Mechanical equipment.
 - A. Steam heated dryer, $5\frac{1}{2} \times 2 \times 2\frac{1}{2}$ feet.
 - B. Electric cutting machine for cutting gauze and bandages. Almost a necessity.
 - C. Twenty-one sterilizer drums, 18 inches diameter.
 - D. One sterilizer (dressing), 7 feet long, $1\frac{1}{2}$ feet diameter.
 - E. One electric sewing machine for preparing sewed dressings. Hardly an essential where a hospital has its own sewing room. At the same time it is a great convenience.
 - F. Twenty-four wire crates (16 x 24 x 12 inches). Containers for small wrapped packages to facilitate handling. These may be purchased or may be made locally.

It is to be expected that there will be a very considerable variation from this equipment list, according to the peculiar needs of each institution and according to the preference of the executive. However, we hope that in general this list will be of service as a starting point at least for anyone who is contemplating gauze renovation for his or her hospital.

WORK ROUTINE.

There have grown up in the gauze rooms of hospitals certain routine procedures that facilitate the running of the gauze room. These are given here in part so as to convey an idea of the direction in which the development of procedure will go in hospitals starting gauze renovation.

Purpose. The purpose of the gauze room, in addition to the actual work incidental to renovation, is to maintain enough reserve supply of dressings of various kinds to meet the daily demands, with some reserve for emergencies.

Requisitions for dressings. These are initiated daily by the head nurses, and sent to the training school office for criticism and approval. They are limited to one day's supply so as to preserve a smooth turnover. Emergency requisitions go through the same treatment.

Requisitions of supplies by gauze room. The gauze room requisitions on the storeroom for *one week's* supply. This facilitates a check on the amount used and relieves us of the necessity of storerooms in connection with the gauze room.

Supply of dressings in circulation. In order to insure a smooth working of the dressing supply there is a certain most satisfactory amount below which there will be difficulty in insuring smooth running and above which is needless expense. This amount is—one day's supply on the wards, one day's supply in the process of renovation, and one day's supply in the gauze room—a total of three days' supply.

A typical day's routine. This routine of work has been worked out in one hospital and since this hospital includes the preparation of saline in the gauze room activities, this routine takes this work into account. It is of value only in showing how the work can be arranged so as to run smoothly, with all tasks fitting into each other and causing practically no sudden peak loads which require added personnel.

First. See that all orders are ready for delivery to the wards. These have been prepared the day previous. This includes wrapped dressings in the wire baskets, drums, etc. The drums are run on the exchange system, a filled sterile one being left for every empty one received from the ward.

Second. Sort the dressings that have been sterilized the night previous into their respective bins or cupboards.

Third. During the time occupied by (2) the rubber goods can be sterilized and the saline machine started. The sterilization of the rubber goods at a definite time each day reduces the number of emergency requisitions, as the head nurses soon learn to arrange their needs in reference to this time.

Fourth. While one helper is sorting dressings (2 above) another is cleaning saline flasks and putting in new clear tops in preparation for their sterilization. These flasks are sterilized as soon as the rubber goods are finished.

Fifth. By this time the empty drums are returned from the wards. These drums can then be filled while the flasks in (4) are being sterilized.

Sixth. At this point the washed gauze arrives from the laundry via the fumigator. Up to this time the helpers not occupied in the steps previously outlined have been busy making up "specials,"

so-called, such as scrap cotton, bed pads, absorbent pads, etc. When the gauze arrives, all helpers whose duty is pulling gauze stop their other tasks and start the handling of the gauze. They are distributed at the various tables and each table sorts and rolls one bag of gauze at a time, rather than lumping all the bags and working on the large pile.

Wrappers are sometimes scarce and often are returned in the bags with the gauze. It is therefore a saving to prepare the gauze for loose bags and drums first, leaving the wrapped gauze till later. It is all pulled as it comes in the net bags but its final preparation into dressings is not completed until later.

This step very largely determines the number of personnel, since this is the major task and the other work can be fitted into the time before this starts.

Seventh. When the saline flasks are filled, the inside labels for sterile towels are made with the silver ink according to the usual practice. This can be done in plenty of time before they are needed.

Eighth. After the drums are filled the time of the supervisor is a little free, since she has but to watch the sterilizers. This freedom gives her an opportunity to check up on the work of the gauze room, investigate and rectify any mistakes in requisitions, etc. In short, set up the smooth running relationship that must exist between the gauze room, the wards and the laundry.

Ninth. The sterilizer has been constantly in operation since it started in the morning. By noon the bulk of the sterilization is finished. The major part of the gauze has been pulled and the reduction of the force by half-days off for the personnel does not prevent the completion of the day's work.

Tenth. The supervisor now has time to get the dressings requisition from the training school office and lay out her work for the next day.

Eleventh. If there is any free time the odds and ends are picked up, such as the replenishment of supply cupboards, etc.

Twelfth. The dressings that have been made up during the day are still damp and must be run through the dryer. This process starts as soon as a dryer load has been made up.

Thirteenth. It has been found very convenient in one hospital to have the output of the gauze room during the day sterilized the following night. This procedure reduces quite materially the supply of gauze needed in reserve without increasing the outlay for equipment. More equipment would eliminate this necessity, but since it can be done very satisfactorily at night this additional expense is hardly justified.

Fourteenth. On Sunday the work is reduced to the minimum. This consists of sending out fresh saline, sterilizing rubber goods and filling and sterilizing the drum.

How gauze is used. One of the primary principles on which gauze renovation is based is the repeated use of gauze, utilizing every piece possible for the making of a dressing. In this procedure or routine the logical place to start is, of course, with the dressing requiring the largest piece of gauze in its manufacture. The situation would be ideal if only renovated gauze could be regularly used for everything except the dressings requiring the largest size of gauze. But in point of fact new gauze is used for other dressings than the largest, so the ideal is not practicable. The nearest approach, then, is to use the smallest number of different sizes possible and to have the smaller sizes multiples of the largest. The experience of at least one hospital has shown that the four standard sizes recommended by this Committee on gauze renovation and standardized dressings are satisfactory, either as specified, or as permitting the cutting into other sizes with a minimum of time loss. These sizes are 36 x 36, 18 x 36, 18 x 18, 12 x 18, 9 x 9, and 4 x 4. It is noted that all these sizes are equal divisions of a square yard.

In Bulletin 51, issued last year, mention was made of the gauze cycle, but it was not described in any detail. The outline following here is made with the idea of illustrating the possibilities of the systematic use of gauze. As is true of all other parts of this outline, no attempt is being made to set this routine up as the last word in the utilization of gauze. It is offered merely as an example. However, anyone contemplating gauze renovation should keep in mind the importance of maintaining the gauze balance. This factor is described in Bulletin 51 mentioned before. With this as a basis, the superintendent must determine definitely the channel through which new gauze will be thrown into the gauze cycle.

The routine of use outlined here is one that is in every day use in one hospital renovating gauze. Naturally there are variations.

1. The largest size gauze, viz., 36 x 36, is put into circulation as the large, sewed, operating room dressings and as bed pads. After use they are renovated, then folded and issued as "18 x 36 dressings folded," or as absorbent pads. In the former case they are folded and wrapped in packages of two and are used for general ward dressings.

2. The small dressings, 18 x 18 and 18 x 12, start in the operating room as sponges. After being renovated they are wrapped, three dressings to a package. On the ward they are for general use when a smaller amount of gauze is required. These dressings are the size used in filling the sterile drums.

This is a very fragmentary outline of the course of gauze in

its use in the hospital but may serve to illustrate the point under discussion, namely, that wherever practicable, gauze should be put into circulation in the large size so as to allow for the maximum of use subsequently.

Sterile towels are used as towels as long as possible and then used as the so-called "10 x 10's" to wrap instruments, etc., when small pieces of linen are used. Later, as "4 x 4's," they are used as wrappers for scrap cotton.

PERSONNEL.

To quote again, as an example, the practice of one hospital—the following personnel has been found satisfactory in the smooth running of the gauze room. Again, it is apparent that there must be a wide variation to meet the wide variety of conditions, and it is given only as an illustration.

1. Supervisor, who is responsible for the general management of the gauze room and certain specific routine duties as indicated in paragraphs 1, 2, 5 and 8 under the heading, "A Typical Day's Routine."

2. Assistant supervisor. This person differs from the other gauze helpers only in the matter of slightly more responsibilities and in more definiteness of duties. Her activities are directed largely toward the work outlined in paragraphs 3 and 7. In addition she sorts wrappers and cares for towels.

3. Gauze helper. A young girl to do the work outlined in paragraph 4 under a "Day's Routine." She also runs errands and polishes nickel as needed.

4. Gauze helper. In addition to working on gauze, as outlined in paragraph 6, she is responsible for all sewing done in the gauze room.

5. Gauze helper. Duties in paragraph 6.

6. Gauze helper. Duties in paragraph 6.

7. Gauze helper. Duties in paragraph 6.

8. Gauze helper. Duties in paragraph 6.

The one helper, No. 3, is required in this case since, as was mentioned before, the preparation of saline is a gauze room activity. In many cases she would not be needed.

This personnel is sufficient to handle a gauze room output of 12,204 yards of pulled gauze, wrapped and sterilized, per week. In

addition to the pulled gauze this personnel handles on the average of 2,000 (2,143) yards of new gauze per week. A total output per week of 14,347 yards. This gives on calculation the figure of 2,049 yards per person per week, or 341 yards per person per day. It may serve to give some idea of the personnel requirements in a hospital starting gauze renovation.

Respectfully submitted,

A. B. Denison, M.D., Chairman
Claribel A. Wheeler
Sister Cornelia and Sister Patricia
Sister Amadeus and Sister Agnes
Therese
Guy J. Clark
John D. Spelman

REPORT OF THE INTERN COMMITTEE

Your committee desires to submit a statement or preliminary survey of the problem as they have found it during the summer of 1923. This is not a final report.

The intern problem is engaging the attention of the following medical and hospital groups: The American Hospital Association, the Council on Medical Education and Hospitals of the American Medical Association, the Association of American Medical Colleges, the American Conference on Hospital Service, the Federation of State Medical Boards of the United States, and individual medical schools and state medical boards.

1. In 1916 the Council on Medical Education and Hospitals of the American Medical Association published a statement of essentials for hospitals providing service for interns, and a list of hospitals approved for intern service. Their latest report in 1923 shows that out of about 3,000 hospitals of over 25 beds, 1,000 desired interns, but only 653 were approved as suitable for intern service—providing 3,675 internships for a graduating class of 3,400. A minimum shortage of about 275 interns therefore exists. The actual shortage is undoubtedly greater, probably in excess of 750. It is certain that this discrepancy will increase because there is no prospect of increasing the number of graduates, while the number of hospitals and the number of internships are certain to increase.

2. The American Conference on Hospital Service appointed a committee in 1922 to consider the training and supply of interns,

and also to investigate the need and training of non-medical aides. This committee has carefully studied the use of non-medical aides as one way of overcoming the shortage of interns and as a means of supplying, with some sort of service, those hospitals that could not get, or hope to get, interns.

Both the American Medical Association Council and the Hospital Conference are interested in the supplying of intern service to hospitals, as well as in the educational training of interns in hospitals.

3. Beginning in 1914, medical schools began to require a fifth, or intern year, before granting the degree of M.D. Eleven out of 80 schools have already adopted this requirement. Many of the remaining schools oppose this requirement, stating that they consider it a fundamental error to certify as to the quality of work done under conditions impossible of close and exact control, for no school can as yet provide internships for all graduates in university hospitals where such control would be adequate. The Association of American Medical Colleges, representing 70 schools, favors the adoption of this requirement by all schools, as soon as every student can be assured a satisfactory internship. The Association has further instructed its executive committee to aid and cooperate with the American Hospital Association in solving the various problems connected with the intern question, such as the time and method of selection and the nature and duration of hospital service.

4. Since 1914, ten states have passed laws requiring that an applicant for license to practice medicine shall have completed a year in a hospital, of at least 25 beds, approved by the State Board of Licensure. The National Board of Medical Examiners—whose certificate is now recognized by the licensing boards of 28 states—also requires a year's internship in a hospital approved by the American Medical Association Council, before its certificate can be issued. The boards of some of the remaining states oppose this, feeling that outside of university hospitals there are very few hospitals equipped to give training commensurate with the time spent and that at the present time it is unwise to extend medical instruction by another year. They believe that the requirement is premature.

Both medical schools and State licensing boards are interested in the intern problem primarily from the educational viewpoint.

5. The American College of Surgeons in 1918 began a campaign for the improvement and standardization of hospitals, which, although not dealing directly with the intern problem, has nevertheless influenced and improved the teaching of interns.

6. The primary function of hospitals is the care of the sick; their secondary functions are teaching and research. Hospitals recognized the value of intern service to themselves, and the value to the community of the teaching of interns, as early as 1870. This teaching function has been generally accepted by hospitals because it has been found that the teaching of doctors and nurses is almost as important a part of hospital service to the community as the care of patients. Moreover, it has been demonstrated that the best care of patients is obtained only where the intern secures that thorough and exact training which best fits him for later practice.

The essentials accepted as standard for the approval of hospitals for intern service are, those standards developed by the best and most forward thinking hospitals in their effort to attract the best type of intern and to instruct him in the best way. Each hospital, however—or, in some cases, a small group of hospitals—has considered the intern question individually, and not until the present committee was appointed has there been any study of the subject by a hospital organization for all hospitals.

Hospitals feel that they should retain the right to examine where necessary, and to choose and appoint interns, because they are required by law to show proper care in the selection of staffs and employees, and also in order that they may retain the necessary disciplinary powers. Hospitals would welcome some agreement as to the essentials for approval for intern service, and, provided a common ground can be agreed upon, there should be no difficulty upon that part of the intern question from the standpoint of the hospital. Some agreement between medical schools and hospitals ought to be reached regarding the time of examination and method of selection of interns.

The American Medical Association Council, the state boards and the medical schools, all disclaim any imputation of criticism in not approving a hospital for intern training, contending that a hospital *may* properly fulfill its duties to the community and at the same time be unsuited for intern teaching.

The situation is at present as follows:

General agreement by hospitals, medical schools, state boards and students, that an intern training is desirable. Requirement of such training by eleven schools in ten states, the offer of suitable internships by 650 hospitals, and the acceptance of these internships by 95 per cent of the students graduating from medical schools each year.

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Agreement must be reached upon the following points:

First. Agreement as to what shall constitute an acceptable intern service, which includes (a) the length of service, which now ranges from six months to two years, with the average at one year; (b) the form of service—whether it should be a rotating service embracing medicine, surgery, maternity and laboratory work, or a non-rotating or continuous service spent in one department of medicine.

Second. Agreement as to how the intern year should be controlled. Shall it be left to the hospitals, shall it be controlled by the licensing board, or shall it be made an integral part of the medical curriculum by withholding the degree until its satisfactory completion?

Third. Agreement as to the best means of diminishing the present shortage of interns and of supplying the increasing demand. (a) Shall the length of some services be increased so that a larger number of students shall serve a longer period? (b) Shall a resident service be formed with promotion of selected interns? (c) Shall fourth year students be used as interns? (d) Shall practitioners seeking postgraduate study be used as short time interns for special services? (e) Shall non-medical aides be used to relieve the interns of certain portions of their present duties?

To solve this problem, it is necessary that all concerned approach the question in a cooperative spirit and by agreement upon some standard, which is for the best interest of each organization, and therefore for the best interest of all.

We would wish, as a means of approaching this agreement, that the intern problem might be made a topic for discussion before a conference at which all of the organizations interested are represented.

This is the problem presented to the Intern Committee of the American Hospital Association, and upon which they hope to make some helpful recommendations next year.

Respectfully submitted,

Nathaniel W. Faxon, M.D., Chairman

Rush E. Castelaw, M.D.

Mary R. Lewis, M.D.

John M. Dodson, M.D.

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PRESIDENT BACON: The Association is very much indebted, I think, to Dr. Faxon's committee for taking up this important subject and it will be of very great help to them in their work for the next year if there will be a liberal discussion of this subject at the Administration Section Thursday morning. It will be a special order at 10 o'clock. We will now have the report of the Committee on Foods and Equipment for Food Service, by Dr. F. R. Nuzum, Director of Santa Barbara Cottage Hospital, Santa Barbara, California.

REPORT OF NOMINATING COMMITTEE

The Nominating Committee beg to recommend the following names for nomination:

For President-Elect—E. S. Gilmore, Supt. Wesley Memorial Hospital, Chicago, Ill.

First Vice-President—J. B. Franklin, Supt. Baylor Hospital, Dallas, Texas.

Second Vice-President—C. W. Munger, M. D., Blodgett Memorial Hospital, Grand Rapids, Mich.

Third Vice-President—Miss Emily Loveridge, Supt. Good Samaritan Hospital, Portland, Ore.

Treasurer—Asa S. Bacon, Supt. Presbyterian Hospital, Chicago, Ill.

Trustees—Miss Alice Thatcher, Supt. Christ Hospital, Cincinnati, Ohio.

A. K. Haywood, M. D., Supt. Montreal General Hospital, Montreal, Quebec.

Respectfully submitted,

George F. Stephens, M.D., Chairman

Chas. S. Woods, M. D.

W. P. Morrill, M.D.

Lewis A. Sexton, M.D.

C. J. Cummings

PRESIDENT BACON: You have heard the report of the Nominating Committee. Are there any other nominations? You have the privilege of nominating from the floor or of putting the name

of anyone you wish to vote for on the ticket. Voting will take place tomorrow, Wednesday, from 10:30 A. M. to 1 P. M. and from 8 P. M. to 10 P. M. at the registration booth. I will appoint as tellers Mr. Baum of the Lakeview Hospital, Danville, Mr. Bishop, Superintendent of Robert Packer Hospital, Sayre, Pa., Mr. Joseph Purvis, Memphis, Tenn.

REPORT OF COMMITTEE ON FOODS AND EQUIPMENT FOR FOOD SERVICE,

In the first annual report of this committee, made one year ago, the location of the kitchen, the relative merits of various equipment, the kinds of fuel and the functions of dietitians were stressed.

In this, the second annual report, special attention will be given to, (1) the relative merits of a central kitchen as contrasted with floor diet-kitchens, (2) the amount of time actually saved by the use of dish washing machines, mixing machines, potato parers, vegetable cutters, meat cutters and bread slicers as determined in various institutions, (3) the average life of kitchen equipment as computed by authorities who are vouched for by the United States Treasury Department, (4) the advisability of using aluminum utensils in the kitchen, as determined by a study of their length of service, etc., (5) the necessity of hospitals offering courses in dietetics, (6) charts showing the actual value in calories of the different kinds of foods served to patients, and (7) suggestions regarding the use of various vegetables in compounding tempting and unusual dishes.

The kitchen and the food service is one of the most vitally essential parts of a modern hospital. In cost of operation it represents from $33\frac{1}{3}$ to 35% of the expense of operation of the entire plant. (These figures were obtained from hospitals averaging 125 beds and whose beds were 80% occupied.) In gaining a reputation among the laity, a hospital is most apt to be judged by the character of the food served. If a patient goes away dissatisfied with what is given him to eat, he is apt to overlook other points of excellence in the service rendered him. It therefore behooves the hospital executive to give time and thought to his food service and once he has that department working satisfactorily, to be ever vigilant that that service is maintained on a high level.

The decision whether an efficient and economic food service can best be maintained by a central kitchen in which the trays are set up, sent up and served directly to the patient from the dumb waiters or whether the food should be sent in food convey-

ances of various kinds from the main kitchen to diet kitchens and then placed in trays and delivered to the patient, depends somewhat upon the type of architecture of the hospital. In the centralized type of hospital construction the central kitchen idea is easily worked out. In the pavilion type of construction it may not be possible.

After a careful study the advantages of the central kitchen idea are found to be many. In a 100 bed hospital, (we have chosen a 100 bed institution as an illustration since, of the total number of hospitals in the United States and Canada, the largest per cent is of 100 or more beds capacity) for every meal served 164 feet of unnecessary walking was done, and when this is multiplied by 100, the total number of patients, $9\frac{1}{4}$ miles of walking, carrying a tray, is wasted each day. The pupil nurses' time and energy can no longer be dissipated in unproductive effort and savings of the above kind must be kept in mind. (For this computation we are indebted to Messrs. Berlin & Swern, Hospital Architects, Chicago.)

In the central kitchen plan all food preparation, dish washing, etc., is located in one part of the building, which means control of odors, conservation of time, supplies, equipment and of shoe leather.

In the central kitchen plan the dietitian and her students can give more careful supervision to the individual trays as they are set up. If the dietitian has discussed special diets with the patient and with the attending physician, as should be done, this opportunity to give particular attention to specific trays adds materially in accurately carrying out minute details that mean much in the progress of the patient and in the satisfaction of the patient with the food service. The dietitian also has a better opportunity to observe the work and instruct the pupil dietitians serving under her.

In the central kitchen plan all special diets and intermediate feedings can be made up and sent to the nursing floor in less time than when done by a floor nurse in a diet kitchen and during this the floor nurse has not been interfered with in caring for her other patients.

These are some of the advantages obtainable with the central kitchen plan. In the construction of a new institution or in the readjustment of a food service the committee feels that after a careful study of this matter has been made, you will prefer the central type of kitchen.

In determining the time actually saved by the use of a dish washing machine, the work as done by hand in four hospitals

ranging from 100 to 400 beds was first determined. We have found that on a basis of two men formerly employed eight hours per day in washing the dishes, one man working with a machine that costs approximately \$500 can do the work formerly done by both men. The salary and the maintenance of one man will soon pay for the machine. There is a further saving in breakage over hand washing. With machines there is less handling of dishes and consequently less opportunity for breakage. In this study it was found that the better grades of dishware, especially those with rolled edges, are less liable to chip and are longer lived. It is interesting to note that the average life of hospital china and glassware is two years. The authority for this statement will be given later.

In the same test institutions the time saved by the use of mixing machines was 85% over hand labor. With these machines the economic measure is no less important than the better work and consequently the better food service.

The time saved by the use of a vegetable cutter averaged 70%. The time saved by the use of a bread slicer averaged 75%, and a meat slicer 20%. With the bread slicer and the meat cutter an additional saving is made in the thinner cuts and the uniformity of the cuts which results when machines are used. Miss Rena S. Eckman in a study of food waste in the University of Michigan Hospital found that with bread there was an average waste of 26.8% in wards and 16% in dining rooms. With meats the following waste occurred:

	On the Wards	In the Dining Room
Pot Roast of Beef.....	14.0%	35.4%
Irish Stew	13.9	11.2
Roast of Veal.....	18.0	14.4
Cold Meat	20.0	31.2
Meat Pie	5.8	11.2
Hamburg .....	....	11.8

This loss may be obviated in part by serving thinner machine cuts.

With a potato parer, again, the per cent of time saved, 37%, is often not the most important item. With these machines the eyes must be removed by hand to avoid too great waste of the potato. The loss of potato through too thick paring when done by hand needs no comment.

The average life of kitchen and of food service equipment is a matter of particular interest. The figures here quoted are reliable. They were computed by qualified investigators and

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are sustained by the United States Treasury Department. (Exceptions as noted have been supplied by the Committee on Foods and Equipment for Food Service.)

CHINA AND GLASSWARE

Cafeteria and road house, estimated life two years—E. B. Horwath.

Hotel and first-class restaurants, estimated life two years—E. B. Horwath.

Hotel, estimated life three to five years—H. W. Pixley.

Club, estimated life three years—W. R. Bassett.

Boarding house, estimated life three years—H. S. Tiffany.

Hospital, estimated life two years—Committee on Foods and Food Service.

LINEN

Cafeteria, estimated life three years—E. B. Horwath.

Hotel and first-class restaurant, estimated life four years—E. B. Horwath.

Hotel, estimated life five years—F. W. Pixley.

Hospital, estimated life 1.5 years—Committee on Foods and Food Service.

KITCHEN UTENSILS

In all catering, estimated life four years—E. B. Horwath.

ICE BOXES AND REFRIGERATION

In all catering ten years—E. B. Horwath, also Philadelphia Controller.

DINING ROOM FURNITURE

In all catering, estimated life ten years—E. B. Horwath.

Hotel, estimated life five years—L. R. Dicksee.

Club, estimated life twenty years—F. W. Pixley.

Hospital, estimated life fourteen years—R. Bolton.

FIXTURES

(Electrical or otherwise permanently attached)

All catering, estimated life ten years—E. B. Horwath.

Hotel, estimated life ten years—L. R. Dicksee.

Hospital kitchen, estimated life sixteen years—R. Bolton.

These figures will surprise those who have not given particular attention to the life of equipment. They are useful in preparing a budget for your Dietary Department.

During the past year a detailed study concerning the merits of aluminum ware in kitchen use has been undertaken. There are eighteen brands of aluminum ware on the market. A survey

used aluminum ware. Of the eighteen brands on the market one brand was used exclusively in 34% of instances. The next most frequently used brand was found in 7% and the third most popular brand in 6%.

As a result of this survey your committee recommends heavy aluminum ware for genral use in hospital kitchens. Large aluminum lined utensils were found preferable to tin and copper lined vessels because they could be cleaned more easily, there was less corrosion and they lasted longer. Heavy aluminum ware for smaller vessels was preferred to medium or light weight aluminum because of its longer life and because it held its shape better.

As to length of life, heavy aluminum ware headed the list. Copper lined vessels, heavy tin and granite ware followed in the order mentioned. The length of life of heavy aluminum vessels was placed at eight years in the hospital kitchens from which this data was obtained. Improper handling of aluminum utensils was more often the cause of their destruction than actual wearing out. The durability of aluminum ware was well demonstrated in a series of tests in which the solubility of tartaric, malic, citric and acetic acids (these being acids frequently encountered in cooking) on aluminum utensils was determined. By these acids, in the concentration in which they are found in fruits, an average of .000012 of a pound of aluminum per square foot was dissolved in 24 hours. At this rate it would take twenty-six years of constant use night and day to dissolve an ordinary cooking utensil. In addition to its natural resistant qualities, practically all aluminum ware is now given a special electrically hardened surface which lessens even the action of hydrochloric acid upon it. (These tests were made by and in the laboratories of the Aluminum Cooking Utensil Co.)

The only drawback in the use of aluminum is the difficulty in soldering it once it becomes perforated. At our booth we have mimeographed copies of instructions for this soldering which may be carried out by your own repair man.

The advisability of suitably equipped hospitals offering courses in dietetics is a topic that is being much discussed and we feel that it deserves emphasis here. The practitioner of medicine has had taken from him from time to time certain types of medical work that come within his field. He lost this work because he paid too little attention to it. Osteopathy is an example. Certain ailments respond well to massage and manipulation. But physicians neglected this form of therapy until it was taken from them and is now practiced far and wide by

cultists and faddists of many breeds, often to the detriment of physicians and frequently to the detriment of the patient. If physicians and hospitals continue to ignore dietetics as they have in the past, the public, which is coming to believe there is much of value in a proper understanding of foods, will turn to ever willing laymen propagandists for this instruction. Various papers throughout the country are already conducting departments of this kind and usually in charge of a layman. If this continues physicians will have another part of their legitimate field of practice painfully removed from them. One method of counteracting this is to have the dietetic departments in hospitals throughout the country in charge of well trained dietitians working in harmony with physician and patient, incidentally educating both. The supply of well-trained dietitians is at present far too limited to do this. Some universities are now offering theoretical courses in dietetics. But actual training in dietetics can best be obtained in hospitals, and this being so, hospitals should offer suitable courses of training. At our booth you may obtain mimeographed copies of an excellent course in dietetics. This course requires six months for its completion, and its aim is to complete the practical education of the student dietitian. It is the intern service of the student dietitian.

This committee feels that improvement in food service requires not only proper raw materials, proper equipment and efficient means of transportation of the prepared food from the kitchen to the patient, but a more scientific knowledge of the specific foods served on the part of those in charge of this important department. With this in view we have prepared charts detailing the caloric value of various foods and the total calories of various meals as served. We have designated those foods which on account of their residue are especially effective in combating constipation. We have re-grouped the various foods according to the acidity or the alkalinity that they produce when metabolized in the body. This control of the hydrogen-ion concentration of the urine by dietary measures is now receiving much attention in the treatment of metabolic diseases. Your dietetic service should cooperate with your staff in the carrying out of these measures. Since vegetables are especially important in the control of the body acidity we have prepared a monograph on the combination of various common and uncommon vegetables in making appetizing dishes.

In conclusion, at our booth we will be pleased to present you with the six groups of mimeographed sheets referred to, a list of articles published during the past year on dietitians, dietetic service and allied subjects (these have been supplied us by Miss Donelda Hamlin, Director of the Hospital Library and Service Bureau) and to inform you of the model kitchen, the model diet kitchen and of various exhibits especially concerned with equipment for food service.

Respectfully submitted,

F. R. Nuzum, M.D., Chairman

C. W. Munger, M.D.

Marion Peterson

C. T. Johnson

Alice Thatcher

REPORT OF COMMITTEE ON LAUNDRY EQUIPMENT, SUPPLIES AND LINENS

The report of this Committee for last year was designed to cover only basic principles and processes in laundering, and the reception accorded it indicated that there was a real opportunity to serve the Association members by endeavoring to put in definite and concise form the results both of our own experience and that of the commercial laundry trade. In studying the problems presented it was early realized that the question of laundry practice and conservation of textiles were so intimately associated that they could not well be considered separately. As has long been recognized by the laundry trade, the initial quality of textiles laundered is so vital an element in their conservation that the Board of Trustees of the Association agreed with the suggestion of the Committee and added this phase of the problem to the scope of its inquiry. In accordance with this action the report is presented in two sections, the first as supplemental to the 1922 report on laundry practice; the second an effort to prepare simple but fairly comprehensive suggestions as to the judging and selection of textiles to be purchased.

The primary objective of the laundry process is to remove dirt and the best approach to its study is to first learn what the more common types of dirt are, and particularly their physical and chemical properties so far as these affect their removal. Dirt is easily classified into three main types:

1. Substances soluble in water.
2. Substances insoluble in water.
3. Stains.

Each of these can be divided into groups.

- (a) Subject to chemical reaction under wash wheel conditions.
- (b) Not chemically reactive under wash wheel conditions.

The dirt commonly met in laundry practice would be grouped as follows:

1. Soluble in water (removed in breakdown.)
 - a. (Chemically reactive) acids derived from soil and foods, alkaline substances from soil, blood pigments.
 - b. (Chemically inert) starch sugar.
2. Insoluble (removed by suds.)
 - a. (Chemically reactive) fatty acids, resinous substances, albuminous substances, some paint vehicles.
 - b. (Chemically inert but emulsifiable) soot, mineral oils, fats, earthy matter, sand, etc., paint pigments.
3. Stains may be removed by suds, bleach, sour or special stain removers.

The removal of types 1 and 2 are the ones on which the normal laundry process is based. This incidentally removes part of group 3, and the remainder, such as tars, oils, metal stains, dyes, tea, coffee, fruit juices, etc., are each the subject of individual and special treatment, usually applicable to the stained area only and in any case not to be put in the same category as other dirt, as their offense is aesthetic only and their removal is often impossible without danger of serious injury to the fabric.

The problem stated, the next matter to be considered is that of process, and it is well under this head to consider supplies first.

WATER

The most used supply is of course water and too much care cannot be taken in insuring a proper quality of water for washing purposes. This matter has been quite thoroughly gone into in a recent article in the MODERN HOSPITAL and it is sufficient here to say that very few water supplies are satisfactory for laundry purposes on account of the lime, magnesium and iron salts contained and usually spoken of as hardness. To meet this difficulty a softening plant, particularly of the zeolite type, will prove a

source of satisfaction both for its economy of supplies, and for the increased life and improved appearance and "feel" of the laundered articles.

SOAPS

As commonly as soap is used, it is strange that its manner of action is so little understood by its users.

Soap is chemically a compound of an alkali and a fatty acid, oleic, stearic and palmitic acids being the most important and valuable ones used for this purpose. When soap is dissolved in water it decomposes to a certain extent, releasing a small amount of fatty acid and free alkali, this hydrolysis increasing with temperature and dilution. The hydrolyzed products are of little or no value in the washing process. The unhydrolyzed portion is the active part of the soap and acts by decreasing the surface tension of the water, which results in an emulsification of the dirt particles and, when combined with agitation, of air, this latter or air emulsion being recognized as suds. The value of the suds is:

1. In creation of an air cushion decreasing the wear and tear on the goods.
2. Introducing oxygen into the material, which effects a whitening action.
3. Assists in dirt removal by air agitation in the fibers and buoyancy.
4. Serves as an indicator of the amount of active soap present in the solution.

The colloidal properties of soap effect the most important phase of its action, finely divided particles effecting a molecular bombardment of the dirt particles and by disintegrating them facilitating their removal in the solution. As this process goes on the soap becomes absorbed or fixed to the dirt particle and thus decreases the amount available for suds, resulting in the washman's practical rule that he must have a four-inch or a six-inch suds for effective washing.

Soap is marketed in many different forms but for ordinary laundry purposes the laundry chip or powdered chip are the ones most commonly used. The best grades of chip soap contain 12% of water, the cheaper grades often more. Powdered soap usually contains not over eight or nine per cent of water and any marked excess may be easily detected as it results in "lumping." The powdered form is becoming more popular all the time as it can be put directly into the washer and thus is much more convenient,

as the chip soaps must always be cooked up into a jelly and this not only requires time, space and equipment, but is usually difficult to keep in a proper state of cleanliness and neatness.

There are on the market many so called improved washing compounds, usually sold as "reinforced soaps," but as the reinforcement is commonly simply the addition of an alkali costing one-third to one-half as much as the soap, it is well to investigate their merits carefully before departing from the standard laundry soaps.

ALKALI

It is in connection with the colloidal action that alkali is effective as a detergent. Caustic soda when dissolved in water undergoes extensive ionization, i. e., a breaking up into sodium and hydroxyl ions. Alkali compounds such as sodium carbonate when dissolved in water likewise split up to a certain extent and the sodium ion unites with the hydroxyl ion of the water to form a small amount of caustic soda. This molecule in turn splits up and goes into alkali and hydroxyl ions and the actual hydroxyl ions thus formed are what is known as the available or active alkali. The action of these may best be described as reinforcing the action of the soaps by:

1. Decreasing the surface tension of the soap solution.
2. Increasing emulsifying properties.
3. Stimulating colloidal action.
4. Retarding hydrolysis of soap.

They likewise have independent action in neutralizing the acid portion of fats and acid dirt, and in softening the temporary hardness of water.

The question of bluing and bleaches having been discussed in some detail in last year's report, nothing need be added except a warning that great care should be taken before departing from the use of the approved formulae. When it is realized that the use of certain proprietary bleaches may result in as much as 25% decrease in tensile strength of the fabric the importance of thorough investigation of such material before use is evident. There are, however, some proprietary compounds which possess distinct advantages over the simpler processes detailed in last year's report, but the committee does not feel justified in entering into the question of the relative merits of strictly proprietary articles.

STARCH

Starch fills a double purpose in laundering. First, it makes possible a stiffness and a finished appearance much admired in many

articles of apparel. Second, it has a much more utilitarian use in that when properly applied it coats the fiber of the garment in a manner which protects it from certain strains of wear and at the same time gives the surface of the fiber a definite armor difficult for dirt particles either to adhere to or to penetrate. Thus, when a starched article comes again to be washed the washing off of the starch takes with it nearly if not all of the dirt.

Starch for laundry use is obtained from two sources, corn and wheat. Corn starch is about one-half as expensive as wheat starch and is much more commonly used. Wheat starch gives a more flexible finish, and, especially in hot weather, retains its finish for a much longer period. This added durability, with the added comfort of its greater flexibility, makes its use very desirable for wear by the sisterhoods, for dutch collars, etc.

STARCHING

The elimination of the starch cooker and the substitution of the cold starch process is growing in popularity. In this process powdered starch is put directly in the washer after the last rinse and run a short time and then extracted in an extractor. In this process the heat of the ironing machine or press is relied on to "pop" the starch granules, in place of the boiling in the starch cooker. Care must be taken in this process to have the solution thin enough to insure even distribution and not to extract so long as to remove too much of the starch.

EQUIPMENT AND OPERATION

The use of individually motor-driven machines, while representing an increased investment, has been found to be very satisfactory in all particulars. It permits much more advantageous arrangement of machinery, the elimination of shafting, pulleys and belts with their attendant noise, vibration and danger, and, in most cases, effects a real reduction in power and general upkeep cost.

WASHING

The development of the metal washer with its possibility of wheel designs, which create positive currents of the washing solution through the goods and more effective "tumbling," has not only resulted in more uniform results but likewise in marked decrease in time per washer load and therefore economy of operation and of floor space. One commercial laundry reports the replacement of nine 36x54 wood washers by three 42x84 monel metal motor-driven washers, resulting in a 10% increase of production and slightly decreased consumption of supplies but no saving of

labor. All the recent models of metal washers are equipped with large inlet (2 in. to 2½ in.) and larger outlet valves, so that a large saving of time results from the quicker filling and emptying of the washer. In fact, the time per washer load is only from one-third to one-half what is required with the old style wood washers.

There has lately appeared an entirely new type of washer, spherical instead of cylindrical, and with one-way motion only, for which much has been claimed—saving of floor space, saving of power and supplies and increased life of machine. So far as is known, this machine has been used to wash small pieces only, such as hand towels, napkins, etc. On account of its spherical shape the goods “tumble” not only down, but in from the poles, and with no reverse motion to untangle them it is pretty certain that it will not be a success with the larger pieces; certainly not with uniforms, probably not with sheets, and possibly its use may be limited to pieces no larger than a bath towel.

DRYING

The only recent advances noted in drying machinery are the larger overhung, semi-automatic extractors, which have proved their efficiency and economy in plants large enough to use them to advantage. These machines run with less vibration, and, due to the use of time switches, may be loaded, started, switch-set and then forgotten; when the pre-determined time for extraction has expired, the current is switched off and the machine stops, with no further attention on the part of the operator. On account of the size of the shell, it is claimed tangling is minimized and that the load is therefore removed with greater ease and without loss of time.

The drying tumbler is gaining a merited popularity. Many articles such as cotton blankets, bath towels, robes, underclothing, etc., can be dried by this process with entire satisfaction without ironing; for the renovation of pillows and even woolen blankets the drying tumbler is a source of great convenience and economy.

IRONING

The power press is a distinct advance in the way of economy of time and has made a definite place for itself. In addition to faster operation it is claimed to give better results on account of applying greater pressure to the goods. One type is safeguarded from accidents to operator by the fact that the power is not applied to the pressing element until it is in contact with the buck; another by a cage which descends and encloses both pressing member and buck before the power is applied. The relative speed of operation of the two arrangements is of course debatable but in any case

they represent a distinct advance over foot operation. At least one type is of such construction as to permit attachment of motor to presses of the pedal type and thereby permits the adoption of this labor saver at minimum outlay. It is claimed for these machines that each has a capacity 30% greater than foot power type, and certainly in these days of labor shortage, their ease of operation is an important factor. Some economical laundries, by making a careful study of classification of articles pressed, and working them two at a time, have claimed as high as 50% increased efficiency, this increase being due to the fact that the operator, relieved of the physical strain of the foot pedal, is able to maintain a higher rate of speed. This, of course, will be largely dependent on the character of the articles in work.

One of the larger hospitals is using a machine called an Ironer-press, which, while in general appearance something like a press, differs in that the upper or pressing member is of cast iron, gas heated and with a convex surface. In use this member is rotated on a spindle, approximating the motion of the ordinary hand iron, and is claimed to do better work than the steam press and much more than a single one, though of course not as much as the steam heated type when set in tandem.

The floating roll ironer represents a new idea in flat work ironers, and, although adapted to the larger plants only, has shown itself to be a real money saver. Its manner of operation permits the ironing of many articles which was not practicable with the fixed roll machine and thus relieves the load of the presses. One hospital has found it possible, by slight changes in design, to iron such articles as nurses uniforms in this machine with entire satisfaction.

TEXTILES

Satisfactory laundering is so greatly dependent upon the character of the fabric to be laundered that a brief consideration of some of the basic principles of textile manufacture should be of value to Association members. The life of most of the textiles used in a hospital is measured by the number of launderings they withstand rather than by their actual use, and the features of their construction which enable them to withstand the laundry process therefore become of prime importance in judging relative values at time of purchase.

Basically all textiles consist of single fibers of the raw material twisted in bundles to form threads or yarn as it is called by spinners. The strength of the yarn is dependent first on the strength of the individual fibers composing it. As all fibers used in spinning

are subjected to chemical treatment to prepare them for use, and their strength after spinning and weaving is in great measure dependent on their pliability, it is evident that the strength of yarn made from identical raw materials may vary greatly. Spinning is essentially a twisting process and it is therefore obvious that, given raw material of similar fiber strength and pliability, the strength of the yarn will vary according to the lengths of the individual fibers and how tightly they are spun together.

It is evident that the number of fiber ends occurring in a given length of thread—other things being equal—will very markedly influence the resistance of the yarn to mechanical injury. The lengths of the various fibers commonly used vary from cotton—reckoned in eighths of an inch—through wool and flax—reckoned in inches—to silk, the individual filaments of which may be well over a thousand yards in length. Further there may be great variation between species of the same material, as from the $\frac{5}{8}$ to $\frac{7}{8}$ -inch of the ordinary cotton to the three or four inches of the sea island variety, which permits the spinning of the smooth hard thread of the so-called mercerized fabrics; from the two or three inch staple of the cheaper wools to the eight or ten of the merino, and from the silkiness and softness of the lamb's wool to the harshness and strength of the camel's or angora hair, from which mohair is made.

WEAVING

Plain weave.

The process of weaving consists in first threading the loom with the longitudinal or warp yarns and then filling with the weft or filling yarns. Ordinarily the warp is the skeleton of the fabric and determines its strength, the filling adding the body and pattern to it. There are three fundamental weaves,—plain, twill and satin. In plain weaving the filler yarn is simply carried over and under alternate warp threads, the next one in similar manner, but alternating its crossings with its predecessor; in other words, a sort of criss-cross as in ordinary surgical gauze. A simple twill weave is over two, under two, the next weft following a similar system but starting its crossings one thread later. This gives the appearance of a diagonal pattern to the finished fabric. By varying the number of threads over and under, many types of diagonals are produced, including an alternating right and left known as herring bone. Of less strength but susceptible of great variety of design is the satin weave, in which the weft is so passed that not more than one-fourth as much weft as warp appears on the right side, thus giving the appearance of parallel warp threads and the characteristic satiny finish.

That portion of a thread exposed on the top of another is known as a float, and it is by increasing the length of the floats that patterns such as damasks are secured. But in this weave beauty is gained at the expense of strength for the reason that when a fabric is woven, for instance, "over six under one," i. e., "floated" six warp thread thicknesses, a much longer portion of the filler thread is exposed without fixation. This results both in "slipping" and in permitting the twist of the thread to loosen and break prematurely. This is a common complaint with the cheaper cotton damasks. In this class of goods, with 170 threads or less to the square inch, it is evident that, using a yarn composed of cotton of $\frac{5}{8}$ to $\frac{7}{8}$ staple and woven with a six thread float, a large number of ends of the component cotton fibers are exposed in each float of the pattern, thus making the thread easily susceptible to injury.

The same pattern in so-called union fabric is quite as durable as the all linen for the reason that the floats are of linen thread and on account of the much longer staple of the flax the floated threads are much more resistant to wear, while the cotton threads are well protected and contribute strength. Union linen should be carefully examined before purchase as it is not unusual to find pure cotton "linen finished" and marked "union" but entirely innocent of a single linen thread.

Another type of weave much used in hospitals is in Turkish toweling and terry cloth. This is woven with two systems of warp threads, one tight, for the body, the other loose, forming loops or piles. The proportion of ground warp threads may vary from one ground warp thread to one pile thread, to one ground warp thread to six pile threads. If the pile loops are in ones or twos it is evident that they are subject to "pulling." The best goods of this group are woven with one ground warp thread to six loop threads and so arranged that the loops are grouped. In use these loops soon become tangled and knotted and thus are securely protected from all ordinary injuries. This type of towel is easily recognized by its longitudinal ridges.

Hand towels are usually of a plain weave and the better grades are made with a two thread warp, the filler not too tightly twisted, as hard spinning decreases absorptive power, even though it adds strength.

TESTING

The foregoing data on the technical details of textile manufacture are not given with the idea of furnishing a basis for the preparation of formal specifications, as it is agreed by all experts that there is so little standardization in the manufacture of textiles

that such specifications are not practicable. In fact, a rather comprehensive search for some purchasing agency which had such specifications has proved fruitless except for one organization, which refused to say whether it had any formal specifications or not, and the U. S. Bureau of Standards, which has so far gone no further than to establish standard technique for testing tensile strength, thread count, and weight per unit.

Recently a writer in the NATIONAL LAUNDRY JOURNAL and evidently connected with the automobile tire industry has proposed a so-called "Index Value" which is represented as follows:

$$\text{Index Value} = \frac{\text{Bursting Strength}}{\text{Unit Weight.}}$$

In this test a small area is subjected to hydraulic pressure to the bursting point, and the pressure required to burst the fabric is taken as the strength. The unit weight is expressed in ounces per square yard and is used rather than the actual thickness of the fabric, on account of the greater simplicity and accuracy possible and the fact that the weight per unit area is in effect a measure of average thickness. The older method of testing tensile strength by a pulling test which must be applied in two directions, i. e., to warp and weft separately, is somewhat illogical as the strength of a fabric is the result of the team work of warp and weft and their separate strength may not give a true estimate of their combined strength, while the bursting strength does.

The thread count, another item to be taken into consideration in judging linen, is described as the sum of the warp threads in one linear inch plus the filler thread in one linear inch; thus a fabric counting 60 threads per inch in one direction and 70 threads per inch in the other would be described as having 130 threads per square inch.

GENERAL PRECAUTIONS

In judging the serviceability of a fabric there are certain defects of workmanship and material which must be watched for in all linens, as a defect almost imperceptible in new goods may actually decrease the life of the fabric by one-half. It is a trade custom to "backfill" new goods with a starch composition, which not only gives the buyer an impression of better finish and greater weight but quite successfully hides many serious defects such as knots, floats, slips and broken threads. For this reason it is necessary to wash a fabric from one to three times, using the complete laundry process, including a mild sour, before it can be properly judged. After removal of the sizing by washing, loose threads, knots, loosely

twisted threads, floats, etc., which were held in place by the sizing, will be loosened and often displaced to such an extent as to be easily discovered by even a cursory examination. There is other information to be gained by this preliminary washing. All threads when wet tend to regain their original length and thus we have shrinkage. In the weaving process the warp threads always, and the filler threads sometimes, are under tension. If the tension on all warp or on all filler threads has been equal the shrinkage will be uniform; but if the tension on different threads has been unequal the shrinkage will likewise be irregular.

Likewise, in preparation of raw material before spinning elaborate chemical processes are involved. The use of excess alkalis or acids in this process weakens the thread very materially, but in the new finished fabric this weakness may not be evident. However, when the chemical still contained in the thread is neutralized by the washing process this weakness becomes evident. A decrease of twenty to thirty per cent in tensile strength may be noted after this neutralization.

When there is no opportunity to wash linen samples before purchase it is possible to judge the amount of filling used by simply crumpling and rubbing vigorously between the two hands. Most of the sizing will crackle off and give the buyer a fair estimate of the actual fabric.

It has not been possible in this report to more than mention the more important points in judging linen. The hospital buyer will do well to deal only with firms of established reputation, and to study samples closely, having in mind the uses to which they are to be put. If it is desired to test specimens it is well to have this done by a testing laboratory. "A little learning is a dangerous thing" only when the user overestimates the depths to which he has drunk of the Pierian Spring.

Respectfully submitted,

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REPORT OF COMMITTEE ON CLINICAL AND SCIENTIFIC EQUIPMENT AND SUPPLIES

THE STERILIZING EQUIPMENT OF THE HOSPITAL

Since the modern methods of sterilizing are practically standardized and are accomplished more or less satisfactorily

in the general types offered, the hospital's selection of sterilizing equipment should be largely on the basis of utility and maintenance. It should be kept in mind, however, that of all the equipment in the hospital, possibly without exception the sterilizers are subject to greater neglect or abuse than any other fixtures. This abuse is not willful, of course, but because of the constantly changing personnel and the lack of the mechanical experience needed competent operation of these fixtures can hardly be expected.

A careful inspection of design, construction and materials usually reveals the merits of a sterilizer. There are more valves required for the operation of the sterilizers in an average hospital than for any other fixtures or group of fixtures outside of the power plant. For the complete steam heated sterilizer equipment of a medium capacity general hospital, say about 100 beds, there are approximately 150 valves—all potential points of trouble, all subject to unusual performance and entirely outside of the immediate supervision of the engineer's department. Hence these valves must be the best obtainable for this particular use and this point is emphasized as typical of the high quality necessary in all details of sterilizer construction.

COMMON METHODS

The most common methods of sterilization are: (1) Moist heat; (2) dry heat; (3) chemicals; and of these moist heat variously applied is, by reason of its wider range of adaptability, the most generally used method.

DRY HEAT STERILIZATION

By this is meant sterilization by dry air, using no water or steam. This is useful when no steam outfit of any kind is obtainable, as ovens at homes in maternity or accident cases. It is necessary to expose the materials to a temperature of 330 to 350 degrees F. for half an hour at least, as dry air does not penetrate well; so, if even a small package of dressings were heated to 350 degrees F. it would not be likely to get much above 330 inside in half an hour. This method is not commended, for the reason given, and almost any kind of steam boiler is better, as even a wash boiler. A sufficiently high temperature in dry air to secure sterility almost always scorches or ruins cotton goods.

STERILIZATION BY BOILING IN WATER

This is the general method in use today in hospitals for the sterilization of metal instruments, glass ligature tubes, other glass instruments, etc., and by some for rubber gloves. It is the real, good, sure, safe method of sterilizing, with no frills or fuss, no vacuum or patent valves about it. If everything were boiled in water for every surgical operation there would be a great deal less trouble. Twenty minutes of real boiling is enough.

CHEMICAL STERILIZATION

Chemicals, although still quite largely used, have their limitations, and great care must be exercised in their use to guard against injury to the articles sterilized as well as to the individual doing the sterilizing.

THE FALLACY OF FRACTIONAL STERILIZATION

The writer is taking the privilege of quoting from an article in *The Modern Hospital* of January, 1917, by Mr. A. Wayne Clark. The whole article is recommended to those who want a clear exposition of the principles underlying sterilization:

"The bacteriologists following Pasteur found that the way to kill all germs in a culture fluid was to bring it to a boil the day it was made, which killed everything but a few hardy spores. Then let the fluid stand in a warm place until the next day, during which time these spores will change into the vegetative or ordinary stage of bacterial existence, and then by bringing them to a boil you can kill them. This is generally done once more on the third day, so as to kill any that might not have developed during the first twenty-four hours. This is the real science of fractional sterilization as opposed to the

"FALLACY OF FRACTIONAL STERILIZATION as practised by some hospitals, discussed by many surgeons, and argued about generally by hospital people. Those who have read the above ought to be able to understand that there is no such thing as fractional sterilization of a dry material like gauze or catgut, because spores can not develop in anything but a culture fluid. Fractional sterilization is a big phrase and sounds well, but it has no business outside of a bacteriological laboratory. Repeated high temperature heating is not fractional sterilization, and moreover the former itself is a fallacy. The only excuse the writer ever heard for repeated high temperature heating was that the germs could be killed by repeated blows a day apart. This was said in sober earnestness, but it seemed to the writer

like a joke, and he felt like saying, and with good reason, that if we are to be compelled to compare killing germs to a prize fight, then why can't you do it better by keeping right on hammering the germs while you have them down instead of waiting twenty-four hours between blows for them to recover?"

PRESSURE STERILIZATION

Pressure sterilization is accomplished through the use of apparatus designed to operate with steam under pressure of 15 or 18 to 25 pounds above atmosphere, at which there is a corresponding temperature of 248 to 267 degrees F. Naturally, apparatus to operate satisfactorily under such steam pressure throughout years of service must be very substantially built and so simple in design as to insure proper operation in the hands of inexperienced persons. There must also be an ample factor of safety in the construction of pressure sterilizers as a guarantee of long continuous service without interruption. To this end it is essential that only the highest quality of materials—bronze, brass and copper—be used and that the work be done by skilled men. The initial cost of such equipment may be a trifle higher, but this little difference is generally far more than offset by savings to be effected in installation and in economy of operation, where equipment is properly selected.

VACUUM DEVICE

A few remarks relative to the desirable features of the individual sterilizers may not be amiss. In recommending the vacuum pressure type of dressing sterilizer I am not unmindful that there are some who consider a high degree of vacuum both before and after sterilizing under steam an unnecessary procedure, but long experience demonstrates clearly that a high degree of partial vacuum (say 10 to 12 inches) prior to admitting steam to chamber aids very materially in insuring deep penetration of contents. Air and steam do not mix readily, therefore, unless special provision in the form of a high partial vacuum is provided, the penetration of contents will be slow, as both steam and air will follow the course of least resistance, flowing around and past the various packages, and steam will appear at the outlet before very much of the air has been expelled. Fabrics tend to retain air, just as a sponge retains water, and with the same pressure surrounding the packages, steam pressure alone is insufficient to expel the air as quickly without the aid of partial vacuum as with it. Certainly, as the air in chamber is rarefied by the creation of a high degree of

vacuum, the contents will lose air and the more air they lose the more quickly the steam will bring about the deep penetration desired. After the initial vacuum the remaining air is gradually expelled through drain outlet provided for that purpose. Thus the vacuum feature, while not an absolute essential to sterilization, is highly essential in view of the time saved and its further assistance in the drying of the dressings by expelling excess moisture and steam at the finish of the process.

INDEPENDENT STEAM GENERATOR

Dressing sterilizer should have an independent steam generator equipped for the desired method of heating and so designed as to be readily accessible for internal cleaning. The objection to the use of steam direct from boiler plant is that frequently oil vapors, iron rust from boiler and steam lines and occasionally taints from chemical boiler compounds are carried right into the chamber of sterilization; whereas, all this is avoided when steam is regenerated from clear water right at the apparatus.

AUTOMATIC REGULATING VALVES

Automatic regulating valves in steam or gas supply lines, which close down the steam or gas when the required pressure and temperature of sterilization is reached, are very desirable accessories. These, in connection with an automatic recording gauge affording a permanent record of each sterilization at the cost of one paper chart per day, will prove profitable in many ways aside from the most desirable elimination of the noise and excess moisture from the almost constant blowing-off of safety valves during the time of operation.

WATER STERILIZERS

The element of uncertainty of positive sterilization of a sufficient quantity of water for surgical use in the modern hospital by simple boiling at atmospheric pressure and the difficulty of its safe storage in open or non-pressure vessels brought about the pressure method of sterilization many years ago. Since then many refinements and improvements have resulted in water sterilizing equipment being brought to a very high degree of efficiency and economy. The ideal arrangement is to provide two reservoirs of the desired capacity, mounted on a common standard, with a filter between, and arranged for the desired method of heating, which may be steam from a central boiler plant where high pressure is available, or electricity, or gas. Where the above heating mediums are not available kero-

sene or gasoline can be used, but they are the least desirable methods. The water reservoirs should be constructed of seamless brass or copper shells lined with pure block tin, and provided with removable bottoms (in preference to removable tops) to facilitate internal cleaning when lime scale or other sediment so prevalent in most sections becomes so hardened that it cannot be blown off through the waste lines. Pipe connections should be preferably of U. S. standard seamless brass pipe and heavy duty fittings, to avoid rust, corrosion and leakage, which are ever present when ordinary iron or steel pipe is used.

USE OF SOFT WATER

The use of soft water in the sterilizers is one that should recommend itself to every hospital. In most of the middle western cities the water derived from the usual city supply contains a great amount of accumulated lime and sediment, in some instances as much as four pounds to every thousand gallons of water. There are several sources from which soft water can be obtained for sterilizer use. In the smaller cities a cistern can be used and the rain water allowed to collect and drain into the cistern, then pumped into the hospital. There are also to be had several water softening systems for treatment of hard water. Where hard water is in use, after a very short while the inside of the sterilizers becomes coated with lime, which becomes very hard. When this happens it is necessary to take down the apparatus and clean out the inside by using muriatic acid, which dissolves the hard lime and forms it into a paste-like substance. Care should be taken in the use of the acid, as, of course, it is very strong.

UTENSIL AND INSTRUMENT NON-PRESSURE STERILIZERS

Utensil and instrument sterilizers of the non-pressure type are very much alike in general design and construction, but vary considerably in size. The most desirable type is constructed throughout of high quality heavy copper with rounded corners and slightly dished bottoms to avoid pockets and to facilitate draining: both types should have suitable provision for raising tray (or trays) cover and contents simultaneously, and air checks to prevent "slamming" when closing. One recent helpful refinement is the placing of a removable screen over the waste outlet, thus preventing scale or foreign matter from getting into and clogging the waste lines.

UTENSIL AND INSTRUMENT PRESSURE STERILIZATION

There is an increasing tendency towards pressure sterilization of both utensils and instruments, using the single jacket

type of horizontal autoclave for the former and the standard dressing sterilizer (steam jacketed autoclave) for the latter. Either the regular dressing sterilizer may be used for this purpose, or a smaller size, fitted with trays for instrument sterilization exclusively.

BEDPAN STERILIZERS

For the emptying, washing and sterilizing of bedpans and urinals there are two types: one provides for the quick (about two minutes per operation) emptying, washing and sterilizing of pan or urinals, but not the contents; the other does the above and in addition provides for the sterilization of the contents, but naturally cannot be operated as quickly. The construction of each is first quality bronze, brass and copper throughout, except the stand, which may be either enameled tubular steel or cast brass pedestal type in dull nickel finish. In each, provision is made for emptying the pan after it is placed within the sterilizing chamber and the cover closed and sealed against any splashing or escape of odor. Cover and waste valve are foot operated, thus leaving the attendant's hands free.

SELECTION OF HEATING MEDIUM

The selection of the method of heating the sterilizers is naturally governed by local conditions and a consideration of economy. Medium pressure steam—not less than thirty-five pounds and preferably fifty at the fixture—electricity and gas have had practical demonstrations sufficient to be considered as standard methods.

ELECTRICALLY HEATED STERILIZERS

The fact is not generally appreciated that there are many institutions where electrically heated sterilizers should be used, where they may be used with greater satisfaction and even at less expense than if heated by either gas or steam. In making this broad statement it is assumed that high-grade, scientifically developed apparatus is being considered.

It is not intended to infer that all small hospitals should use electricity, but the average small hospital of fifty beds or less or possibly greater capacity should consider electricity when it plans this branch of its equipment. It is a fact demonstrated in many hospitals all over the country that under certain conditions electricity meets the requirements better than anything else. The decision to use electric sterilizers, however, should be made only after careful investigation. Over-enthusiasm on the subject may cause unwarranted expense, such for example as the idea of producing electric power from steam in the institu-

tion's power plant, to heat sterilizers.

No exact rule can be formulated, but the following paragraphs will help in a preliminary way to determine what method of heating is best adapted to given conditions.

If the hospital is large enough to maintain a power plant and has other use for pressure steam (40 to 60 pounds) all the year around, the problem is simple. This hospital should use steam for sterilizing; it can ill afford to use anything else, for steam equipment wears well, steam heat is much more rapid and it has the great advantage that no part of any sterilizer so equipped will be injured if the operator should operate the sterilizer dry.

But installing a steam plant for the sole purpose of heating the sterilizers is an expensive luxury. Any high pressure boiler should be handled only by a licensed engineer, whose salary alone would be several times the cost of the electric power required for the sterilizers, even at a high rate. It would also cover any probable expense in repairs to the heating equipment. Then, too, electricity is ready for use at any time, and it would not be practicable to keep up steam in the boiler more than for a few hours each day. During the remainder of the day the sterilizers are out of commission.

The first cost of a battery of electrically heated sterilizers, completely installed, would be a good deal less than the cost of the same sterilizers steam heated, including the boiler and accessories.

DISADVANTAGES OF GAS

Gas heated sterilizers are in general use and usually they function very well, but they have marked disadvantages. They are always more or less dirty, they keep the sterilizing room intensely hot and the air vitiated. In close quarters they are always objectionable, as they detract from the ideal sanitary condition so essential in surgery. But if the nurse permits the water to evaporate or drain out when the gas is lighted, the entire sterilizer may be ruined in a few moments; certainly expensive repairs will have to be made, involving delay, and the sterilizer after one burnout will never look right again. Repeated burnouts will certainly necessitate replacement.

ADVANTAGES OF ELECTRICITY

Electricity has advantages over steam or gas in that it is perfectly clean and cooler. Most of the objectionable features of gas are entirely eliminated, and it does its work more quickly. If you turn on gas in an empty sterilizer you burn up the steril-

izer; if you turn on electricity in an empty sterilizer you burn up a heater, and you injure your sterilizer not at all. You can replace the heater at comparatively small expense, with no serious delay. All of the units of a well designed outfit are exactly alike and one or two spares may be carried in stock for emergency. Very small sterilizers are made with automatic devices which effectually prevent burnout; but such equipment applied to a large sterilizer would be much too complicated to be practical.

DEPENDABILITY OF SUPPLY

In deciding between gas and electricity the first consideration should be: "Are both supplies dependable, and which is more dependable?" In many towns the gas supply occasionally gives out or gets so weak that it is impossible to use it successfully at certain periods of the year. If this condition exists or is liable to exist, it will be unwise to equip for gas heating. Similarly, some sources of electric power are not reliable, but this condition, owing to constantly improving apparatus, is becoming rare.

If both gas and electricity are available, dependable and supplied at fair rates, one must weigh the advantages of electricity over gas and consider the first cost and the cost of operation and upkeep.

FIRST COST OF ELECTRIC STERILIZERS HIGH

The first cost of the electric outfit installed will be possibly 10 to 20% higher than for a similar gas outfit and the cost of operation will usually be 25 to 50% higher for electricity than for gas. With careful handling the upkeep should be about the same for either method. This estimate would seem to indicate that electricity is too expensive to be considered, but one must remember the features of cleanliness, actual and apparent, the greater speed in working and the fact that burnouts will leave the electric sterilizer unharmed while burnouts will ruin the gas sterilizer.

COST OF OPERATING ELECTRIC STERILIZERS

The actual cost of running an electric sterilizer may be accurately predetermined from test data. Of course, such figures cannot take into consideration careless work or needless use of power; they would be based upon the exact requirements for sterilization under specified conditions, such as the use of filling water at a given temperature and starting with a certain quantity of water. The watt hour consumption of

power can be closely estimated per sterilization for each type of sterilizer. By estimating the number of times each sterilizer will be used per month, the total power consumption can be shown. For example, a certain hospital of forty beds' capacity estimates that one month's work will be about as follows:

- Instrument sterilizer in use 75 times;
- Utensil sterilizer in use 50 times;
- One tank of water sterilizer in use 30 times;
- Dressing sterilizer in use 30 times.

For this amount of use, and assuming that the sterilizers will be filled with water at 150 degrees F., the total power consumption would be 460 K. W. H. Thus at an average rate of three cents, the bill for the month would be \$13.80.

If a hospital anticipates the purchase of electrically heated sterilizers it will be well to submit all details of requirements. This data should be taken up with the local power company to determine what is necessary in the way of wiring and what voltage is most desirable to use. Usually it is best to operate 220 volts.

As is the case with all competitive lines, some electric sterilizers are better than others. In fact, some outfits are not even good. Unless the manufacturer has had much experience, has actually developed what he has to offer, his apparatus will likely be more or less in the experimental stage. There are certain definite points which are very important and which should be investigated before purchasing.

EQUIPMENT OF ELECTRIC STERILIZERS

The sterilizers should be furnished complete with every operating valve, fitting and switch necessary for the perfect control of each sterilizer independently of the others. Each sterilizer should have at least three heats. All heaters should be perfectly and easily interchangeable from one sterilizer to another, and in no case should they be built into the sterilizer itself. The idea of making the heaters all alike and perfectly interchangeable permits carrying one or two spares in stock which can be used immediately on any sterilizer in case of accident and it greatly simplifies the work of changing heaters. All parts of the electrical apparatus, including the control, should conform to the standards of the National Underwriters.

SPECIFICATIONS AND SKETCHES

The buyer should insist that the manufacturer should provide complete specifications and sketches showing that the appa-

ratus will fit the space that the hospital has for it and locating the wiring and piping outlets definitely. Then when the apparatus arrives the same care and intelligent attention should be given it that would be given to a fine automobile, and if the hospital has been wise in its selection it will have every reason for pride in its equipment.

PLACING OF WATER STERILIZERS

The placing of water sterilizers depends largely upon the technique of the institution. Under ordinary circumstances these sterilizers are placed in the sterilizing room at a height sufficient readily to supply water to faucets in the operating room sinks. The obstetrical department and the emergency department ordinarily have separate and smaller units. Many hospitals are installing central water supply systems for sterile water. The tanks for these, of 100-gallon capacity or larger, are placed in the attic. They are operated in much the same manner as ordinary water sterilizers and the water is distributed throughout the institution by gravity. Where installations of this type are made it is necessary, in order to insure sterile water being drawn at the taps or outlets, that all such sterile water lines be in one circuit, using a supply directly beyond the sterile water tank and a return at the extreme end of this line, so that each morning the water may be turned off at the sterile tank and the entire system be thoroughly sterilized by the introduction of live steam. This only requires a few minutes and should not be neglected; otherwise contamination is likely to occur in the pipes. It is well to open up, for a few moments, all of the sterile water faucets on the fixtures; but these should not be left open for any length of time, as the rooms in which the fixtures are placed would have considerable steam blown into them.

SPECIAL PIPING NEEDED

The ordinary piping from the sterilizers to such outlets is not sufficient. All such piping should be either of block tin, cased with lead or iron, or the pipe should be made of Benedict nickel. These pipes are practically free from deleterious effects through chemical action on the sterile water.

PIPING PRE-ARRANGED

It is therefore essential in laying out the architectural plans for a new institution that the necessary pipes, calculated as to their size, position and spacing, be adequately provided. This not only

applies to these steam lines, but to the water supplies and waste necessary for both individual units and battery installations.

DISH WASHING MACHINES AS STERILIZERS

There are on the market dishwashing machines which if used as directed will sterilize dishes thoroughly, but the chief objection is that these infected dishes as they come from the patient are stacked up and sit around the kitchen; during this time they constitute a source of danger. The advantage of a utensil sterilizer is that dishes are put directly into it without being set on any table or other article of furniture. If the dishes were put into a dishwashing machine directly as they come from the patient a dishwasher would meet all the requirements.

TWO SMALL DRESSING STERILIZERS

In the larger hospitals where a dressing sterilizer of the larger size is contemplated, it is well to consider the installation of two apparatus of smaller sizes, so that uninterrupted service is assured in the event of one of the apparatus not working.

USE OF DRUMS

The use of dressing containers (drums) is a very excellent way not only to sterilize dressings, but is an ideal way to keep the materials sterile until they are ready for use. The drums are airtight and the dressings will remain sterile for an indefinite period.

TIGHT PACKING

Care should be taken in preparing the materials for sterilization that they should not be packed too tightly. Here is one source of possible trouble that one hardly looks for. A bundle of materials to be placed in the dressing sterilizer that is too tightly packed will not always be penetrated throughout in 20 to 30 minutes, with 15 pounds' pressure. The question of how tightly the dressings should be packed is one to be dealt with by the surgical nurse and assistants. One of the reasons why one Diack control will fuse and another not, in the same package, is due in a large measure to the density of the package. The one on the outside will melt and the one in the interior will not. The trouble is unquestionably to be found here; presence of air in the sterilizing chamber, density of the package to be sterilized, materials of package—these are some of the reasons why at times the Diack sterilizer control will not melt. Under proper guidance and operation properly followed through and in a sterilizer in good working condition, the melting of the sterilizer control is one of simple procedure. A sterilizer that will not melt a control in thirty minutes at 250 degrees F. would better be looked into, and some of the possible trouble may be as stated above.

DIACK CONTROLS

As a matter of interest to hospitals, it may not be amiss to state here that the sterilizer control Diack will fuse, or melt, in ten minutes at 248 degrees F., provided, of course, that the steam strikes the control, that packages are not too tightly wrapped and that the air is eliminated from the chamber, because with steam and air mixed in the same chamber, the temperature is lower than the gauge reading.

OVER-STERILIZATION

Some hospitals waste considerable time in sterilizing for more than thirty minutes after the steam reaches fifteen pounds, because if the control will melt in thirty minutes or less under ideal conditions, which it will, it would be folly to prolong the sterilization period. In a recent report published by Diack he shows where the thermal death point of all bacterial life varies from 25 minutes at 240 degrees F. down to 5 minutes at approximately the same degree of heat, because authorities differ on the thermal death point of bacterial life, some claiming 25 minutes at 248 F. will destroy and completely sterilize all materials, while others do not deem it necessary to go even this far.

THERMAL DEATH POINT

In Diack's report on the relation of time and heat to completely sterilize in the presence of moisture, it is interesting to note the extent to which various authorities differ on the thermal death point of bacteria. The following report gives some idea of the difference of opinion:

Jordan	248 degrees F.....	5	Min.
Muir & Ritchie....	248 degrees F.....	7½	Min.
Gerard	240 degrees F.....	10	Min.
Novy	230 degrees F.....	15	Min.
Eyre	239 degrees F.....	15	Min.
Beeson	239 degrees F.....	20	Min.
Sternberg	239 degrees F.....	25	Min.

STEAM TESTS

Steam heat penetration tests as applied to sterilization, conducted at the University of Wisconsin by Scanlan, Larson and Clark, and the experiments conducted by Diack of Detroit, prove conclusively the necessity of freeing completely the sterilizing chamber of all air and the fallacy of relying upon gauge readings to determine accurate results as to steam penetration (temperature) in the center of bundles of various size and density that are placed in the sterilizing chamber for sterilization.

BACTERIOLOGICAL TESTS

In order to be absolutely sure, it is necessary, therefore, that bacteriological tests be made of each lot of dressings sterilized, or that each bundle have placed in the interior of the bundle a tablet that will not melt or change color until a temperature sufficient for complete sterilization has reached this tablet.

SIZE OF STEAM LINES

If steam from an auxiliary boiler is to be employed as a heating medium, the boiler should be of the proper type and capacity; the steam supply line from boiler to sterilizing apparatus should be of ample size, and the steam return lines from sterilizing apparatus should be properly trapped, that is, a steam trap placed in the steam return from the battery of sterilizers; or steam traps placed in the steam return lines from the individual sterilizers composing the battery; or a steam trap placed in the steam return main near the boiler, as conditions may indicate.

TRAPS

Properly trapping the steam return lines will remove the condensation from the heating coils of the sterilizing apparatus, thus permitting steam from the boiler to circulate freely through the heating coils of the sterilizers, thereby obtaining the maximum temperature and efficiency of the steam as a heating medium in operating the sterilizers.

In the larger hospitals—having, as they do, an available supply of high pressure steam, and operating batteries of sterilizers and various individual sterilizers, the sterilizers located at different points throughout the building—it is positively essential that in the installation of the heating medium (high pressure steam) the steam supply line, steam return line, water supply line and the water waste line, be not only of proper size and capacity but also properly installed to insure the efficient operating of the various sterilizers that are installed and taken care of by these lines.

With the sterilizers installed on various floors and in various sections of the building, the individual sterilizers or sterilizing unit should be equipped with a steam trap of approved type and this trap, at intervals, should be inspected and kept free from accumulating sediment.

The steam return main from the sterilizing apparatus should drain into a pit or hot well; the condensation from the pit or hot well being pumped back into the boiler or boilers by means of either a steam or electric pump.

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AMPLE GAS LINES

With gas as the heating medium, it is necessary that the gas supply line be of ample capacity and that the gas burners be powerful and of an improved type, insuring perfect combustion.

COMPLIANCE WITH BUILDING CODE

With electricity as the heating medium, it is necessary to comply with the building code of the town or state in which the hospital is located and with the insurance underwriter's requirements. The power line supplying current to the electrical heating units must be of sufficient size to carry the maximum amount of current required and should be run in a conduit to a properly wired and constructed fuse box.

SHUT-OFFS

The steam supply line and steam return line, where they enter the sterilizing room, should be fitted with valves for shutting them off (if it at any time becomes necessary). The steam supply line in the sterilizing room should be fitted with a steam pressure gauge. With the gauge registering pressure in the steam supply line, the nurse operating the sterilizers can, by looking at the gauge, instantly determine the steam pressure available for heating the sterilizers.

IMPORTANCE OF STERILIZING DRAW OFF TAPS

The draw off taps on the sterilizer tank should, at intervals, be flushed with boiling water from the tanks. This should be done at least once a day, before the water is allowed to cool, and before sterile water is drawn from the tanks. The draw off taps are, unless kept sterile by flushing, a means of refertilization and the sterile water, when drawn off at these taps, will, in passing through the unsterile taps, become refertilized.

IMPROVEMENTS

Improvements in sterilizing apparatus are being brought out frequently by various manufacturers, as an example of which may be cited a saline mixer, which gives a normal salt solution without the need of measuring and which can be attached to any water sterilizer which has a distilled water attachment.

TYPICAL INSTALLATION

Typical sterilizing equipment required in an average 100-bed general hospital is as follows:

Two dressing sterilizers 16x36 with automatic control valves, 16 drums and 1 3-drum stand for each operating room.

One pair of water sterilizers, 50-gallon capacity, each tank with 6 gallon capacity distilled water attachment.

Instrument sterilizers 9x12x22, one for each operating room.
 Utensil sterilizers 20x20x24 mechanical lift, one for each operating room.

One saline solution sterilizer.

One blanket warmer 20x24x72.

Maternity Department Sterilizing Rooms—

One pair water sterilizers, 10 gallon capacity each tank.

One utensil sterilizer 20x20x24.

Dressing Rooms—

One pair water sterilizers, 6 gallon capacity each tank.

One instrument sterilizer, electric, 5x6x16.

Duty Rooms—

One utensil sterilizer 20x20x24, mechanical lift.

One instrument sterilizer, electric, 5x6x16.

One blanker and bedpan warmer 20x24x72.

Locker Room and Mattress Storage Room (or Laundry)—

One mattress and clothing sterilizer, rectangular, 42x42x88, steam and formaldehyde.

STERILIZER SPECIFICATIONS

The following specifications have been submitted to the American Engineering Standards Committee, of 29 West Thirty-ninth Street, New York City, for consideration. To date these specifications have not been acted upon, but they are submitted at this time in the hope that they may be helpful and that they may form a basis for discussion:

DRESSING STERILIZERS

Dressing sterilizers shall conform approximately to the following:

Inside Dimensions	Minimum Thickness of Sterilizing Chamber Wall
10 in. diameter x 20 in. long	.065 in.
14 in. diameter x 22 in. long	.083 in.
16 in. diameter x 36 in. long	.109 in.

Dressing sterilizers shall be of the jacketed type, arranged so that steam will surround the sterilization chamber except at the entrance door.

The door, door frame, and other castings shall be of high grade bronze. The wall of the sterilizing chamber shall be of tin-lined, seamless drawn brass or copper of not less than the thickness specified above. The outer pressure cylinder shall be of seamless drawn, riveted and brazed or dovetailed and brazed copper, suitably covered with heat insulating material and fitted with a

finishing jacket, not less than .042 in. thick, of sheet copper, nickel plated. The inside and outside shells shall be riveted suitably to a bronze collar, machined all over, and arranged to form the door frame. This frame shall be suitable for the fitting of the door packing, which shall be removable. The door shall be fitted with double hinges and eight clamping levers, operated by a single wheel, and arranged to swing away from the sterilizer and close against a packing seat of non-vulcanizing material.

Steam for the dressing sterilizer shall be generated by an independent heater. The generator shall be of such capacity that with water at 70 degrees Fahrenheit to within half inch of top of gauge glass, a suitable sterilizing temperature (250 degrees F.) shall be attained within fifteen minutes. For electric sterilizers, the low heat shall maintain the sterilizing temperature for at least twenty minutes. Means shall be provided for cleaning.

An operating valve or valves arranged for front operation for admitting steam exhausting and creating a vacuum in sterilizing chamber shall be located so as to insure circulation of steam throughout the chamber. The valve or valves shall be marked according to function, e. g., "Close," "Sterilize," "Exhaust," "Vacuum."

The vacuum device shall be capable of creating a 10-in. vacuum within two minutes after turning on the steam.

Gauge glasses, safety valve, pressure gauge for jacket, pressure and vacuum gauges for the chamber, air filtering valve and water supply valves will be fitted.

UTENSIL STERILIZER

Utensil sterilizers shall conform approximately to the following:

Length	Width	Depth	Minimum Thickness of Material
20 in.	15 in.	16 in.	.032 in. sides, .040 in. top and bottom
24 in.	20 in.	20 in.	.032 in. sides, .040 in. top and bottom

Utensil sterilizers shall be made of sheet copper of at least the thickness specified above, heavily reinforced at top, heavily tinned inside, and heavily nickel plated outside. The sterilizer shall be fitted with a seamless dome shaped cover and perforated tray, reinforced at edges and tinned, arranged to be simultaneously raised and lowered by means of a noiseless foot lever conveniently located of sufficient strength to cover distortion.

The heater shall be capable of boiling not less than 6 and 12 gallons of water, having an initial temperature of 70 degrees F., in thirty-five minutes, in the smaller and larger sterilizers, respectively.

INSTRUMENT STERILIZERS

Instrument sterilizers shall conform, approximately, to the following:

Length	Width	Depth	Minimum Thickness of Material
16 in.	8 in.	6 in.	.025 in. sides, .032 in. top and bottom
18 in.	9 in.	6 in.	.025 in. sides, .032 in. top and bottom
20 in.	10 in.	6 in.	.025 in. sides, .032 in. top and bottom
22 in.	12 in.	7 in.	.032 in. sides, .040 in. top and bottom

Instrument sterilizers shall be made of sheet copper, of not less than the thickness specified above, heavily tinned inside and upper edge reinforced. The sterilizer shall be fitted with a seamless dome shaped hinged cover and perforated tray well tinned. A foot lever, of the air cushion type and noiseless in operation, for raising and lowering the cover and tray, shall be provided. The tray shall be supplied with folding handles.

When independent instrument sterilizers are specified to be portables, they are to be mounted on legs about three inches high without stand. Hand lever, in lieu of foot lever specified above, shall be fitted.

The heater for separate electric instrument sterilizers shall be controlled by a 3-heat indicating snap switch and provided with 10 feet of flexible cable without attachment plug.

The sterilizer shall be equipped with a heater capable of boiling at least two inches of water, having an initial temperature of 70 degrees F. within ten minutes. The low heat shall be capable of maintaining boiling water.

WATER STERILIZERS

Water sterilizers shall be approximately as follows:

Capacity Each	Minimum Thickness of Shell
8 gallons	.042 in.
25 gallons	.057 in.
50 gallons	.065 in.

Water sterilizers shall consist of two sterilizers, each of the net capacity specified above, exclusive of dome space, fitted with means of renewing and cleaning coils and heating units. Each reservoir shall be tin lined, seamless drawn brass or copper shell, with dome top and concave bottom. Each reservoir shall be fitted with a suitable steamheating coil of copper pipe or tubing of sufficient thickness to stand a hydrostatic test of three hundred pounds per square inch. The cold water tank shall be fitted as ordered, with either of the following:

- (a) Separate heating and cooling coils.
- (b) Combined heating and cooling coils.

Each water sterilizer shall be fitted with either combination or separate draw off as ordered.

Between the two sterilizers a filter shall be installed. The filter casing shall be tin lined, seamless, cold drawn copper shell, not less than .049 in. in thickness, fitted with removable filter stones of suitable size. Shells of water sterilizers and filter shall be heavily nickel plated. The top of water sterilizers shall be as low as practicable, the maximum height permissible being such as will permit the shells to be readily removed in a height of eight feet, if the construction requires it, in order to examine the interior coils, etc.

Water gauge glasses and thermometers shall be provided, with guards to prevent same from being easily broken. Waste or wash-out from each water reservoir and filter shall be connected into general waste lines.

Piping for both sterilizers shall be run to common fittings located in the back of the sterilizers.

CONTAINERS FOR STERILIZED DRESSINGS

Containers shall consist of a set, four in number, suitable for use with dressing sterilizers described above. The containers shall be constructed of copper, heavily tinned, the covers being seamless. Containers 12 inches or less in diameter shall be at least .028 inch thick. Larger sizes shall be at least .032 inch thick.

The covers shall be substantially hinged and properly seated so as to form dustproof drums. Hasps and staples shall be provided to securely lock the covers.

A wire handle for carrying the drum shall be attached to each cover. This handle shall be suitable for opening the cover by means of a foot lever on the stand.

The drums shall have suitable steam ports which may be closed by tight fitting sliding covers.

One of the containers of each set shall have a lower compartment for use as a water reservoir. This reservoir shall be fitted with an electric heater.

The containers shall be arranged so as to be rigidly secured in position on stands.

The exterior of the containers shall be nickel plated.

Electric Heater: The electric heater shall be capable of boiling not less than a half gallon of water, having an initial temperature of 70 degrees F., in twelve minutes.

The heater shall be controlled by a three-heat indicating snap switch and be provided with ten feet of flexible cable without attachment plug.

Container Stand: Container stand shall be of straight type, suitable for four containers as described above. The container

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stand shall be rigidly constructed of tubular steel, white enameled, provided with ready means for securing to the deck or floor.

Four-foot levers shall be fitted to the stand for independently opening the container covers and automatically closing the same upon removal of pressure upon the levers.

Separate containers for sterilized dressings shall be mounted on a stand about thirty inches high.

COMBINATION STERILIZERS

Combination sterilizers shall consist of such of the foregoing units as may be ordered, arranged for operation from the front, suitably and rigidly supported on a white enamel tubular metal stand, with means for securing to the deck or floor.

PORTABLE LOCKERS

When ordered, portable lockers about twelve inches high, constructed of 0.05 inch rust proof steel plate and of about the depth of the tubular stand, with bottom not less than four inches above the deck, shall be located under the combination sterilizing outfits. Top, bottom, back and sides of lockers shall be water-tight, and each locker shall be fitted with a tight closing door or doors provided with hinges and fastenings of heavily nickeled brass.

Doors shall be suitably stiffened, and door frames shall be fitted.

GENERAL

ELECTRIC

Heaters shall be suitable for operation at not less than three heats on the voltage specified.

All heaters shall be guaranteed to operate at electrical inputs within 5 per cent of their rated capacities.

The controller for the combination sterilizer shall consist of indicating snap switches of suitable type, mounted on a panel located on the sterilizer stand. The circuits to each sterilizer shall be provided with a suitable protective device, located in accessible position.

All current carrying parts shall be protected and insulated with approved materials. The complete apparatus shall withstand a dielectric test of five hundred volts alternating current for one minute when hot, with all current carrying parts in circuit.

All heater units of similar rating shall be interchangeable, if practicable, and readily removable. The heating element materials shall not show detrimental oxidation under service conditions. All connections shall be accessible, capable of withstanding normal operating temperatures, and shall not be loosened by vibration or temperature changes.

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STEAM

Steam sterilizers shall be arranged for high pressure steam heating. The piping shall be such that with a steam pressure of fifty pounds on the line, the entire set of sterilizers, in combination, may be operated simultaneously in a satisfactory manner.

Steam coils shall be of seamless copper piping or tubing, tinned, and, together with steam and return valves, shall be tested to 300 pounds hydrostatic pressure. Safety valves shall be fitted as required for safe operation.

FITTINGS AND ACCESSORIES

All necessary and desirable appliances, valves, pressure and water gauges, thermometers, operating levers, handles, switches, electric connections, etc., shall be furnished complete and ready for installation. Except for the stands, piping and fittings shall be brass, nickel plated. The piping in stands shall be steel tubing with brazed or welded joints with non-rusting bases.

NAME PLATES

Each complete apparatus shall be fitted with a single brass name plate in a conspicuous location in order that it may be read after installation. The name plate shall contain the following data:

Name of apparatus.

Name of manufacturer.

Shop number.

Manufacturer's type and class.

Year of manufacture.

Voltage and kilowatt rating (if electric) or steam pressure.

Name of vessel, laboratory or hospital to which supplied (if specified).

Name plates shall also be fitted with each valve, indicator, etc., as may be required.

FINISH, INSPECTION, ETC.

Unless otherwise specified, stands and lockers shall be finished with two undercoats and two finishing coats of high grade white enamel baked on.

Door and door frame of the dressing sterilizer shall be finished in one undercoat and two finishing coats of hand-rubbed ebony enamel.

Handles subject to heat shall be wood (ebony) covered.

All exposed surfaces of apparatus, piping, and fittings shall be heavily nickel plated and polished, or finished in brush or satin nickel, as specified.

All details of outfit, its design, material, workmanship, finish, and operation under service conditions, shall be first class in every respect.

Thicknesses specified are those prior to nickel plating.

Any parts proving defective within one year from date of contract shall be made good by the contractor without expense to the purchaser.

PLANS AND SPECIFICATIONS

Plans showing an outline of the apparatus proposed, together with overall dimensions, space and clearances required, size and location of pipe connections and electrical conductors, rated capacity, type and name of manufacturer of heaters, location and size of securing bolts, as well as diagrams of electrical connections, shall accompany all bids. A plan or plans including the foregoing information shall be furnished, for installation purposes, with each outfit.

All blue prints, sketches, cuts, or other descriptive matter shall be in duplicate, labelled with the class and schedule number, and shall be pasted or otherwise attached to the page of the proposal in both the original and duplicate bids.

Bids on apparatus differing from the foregoing specified details will be considered, provided such differences are clearly noted and described by the bidder, and provided further that the material offered under these conditions is found to cover, in all essential respects, and is considered equal to, that described by these specifications. The contractor will be expected to meet all detailed requirements of the original specifications, except in so far as specified in the proposal.

"Methods of Sterilization" does not properly come within the scope of this paper, but the writer wishes to enter a plea for the better understanding of the principles underlying sterilization and for a more consistent and intelligent effort to carry them out in practice. Perhaps it might be feasible for this Association to work out something along the lines of standardized sterilizing practice for the benefit and guidance of its members. Many times failure to secure complete sterilization is blamed on the sterilizing equipment, sometimes, perhaps, rightly so, but more often due to faulty manipulation and technique, due to lack of understanding of the underlying principles. A few instances of this kind will be related.

In one hospital it was found that in preparing dressings for sterilization they were packed in fruit jars, and these, tightly sealed, were placed in the dressing sterilizer. Of course, no steam at all could reach the dressings—yet failure of sterilization was blamed on the equipment.

In another case sterilization was found to be done by the so-called "dry method." The door of the autoclave, owing to some mishap, would not close steam-tight, and so this new method was devised. With fifteen pounds steam pressure in the jacket, the door (which was not even steam-tight) was closed and the dressings allowed to remain in the warm inner chamber half an hour. Not a particle of steam came into contact with the materials and the heat was never too great to bear the hand in. In another case, to overcome wet dressings, the surgical nurse made a practice of just allowing a small puff of steam to enter the chamber and then allowed the dressings to remain in the warm inner chamber half an hour. In another case, the nurse had been accustomed to the use of a dressing sterilizer equipped with an automatic air ejector, and on taking over another set of equipment not so equipped found that the Diack sterilizer controls could not be melted in even two hours of operation. When her attention was called to the necessity of removing the air by manually operated valves, the situation was cleared up at once and the controls melted in half an hour at the most.

In some hospitals surgical instruments are sterilized by boiling for fifteen minutes, in others half an hour, while recently one prominent surgical nurse, writing in one of the hospital publications, recommended that sharp instruments be boiled three minutes! If a sharp instrument can be sterilized by boiling three minutes, how long should it take to sterilize a dull instrument? Does it take longer to sterilize a pair of obstetrical forceps than it does a scalpel or a haemostat?

Some hospitals sterilize utensils in a pressure sterilizer, at 15 to 20 pounds pressure, others by immersing in water and boiling twenty minutes or longer, while others stack the utensils and steam them with only three or four inches of water in the bottom of the utensil sterilizer. Which is right?

In a certain hospital where a large number of infections occurred, the blame, of course, was put on the equipment. Careful investigation showed nothing wrong with the sterilizer, but further inquiry elicited the fact that rubber gloves were being "sterilized" in a tin box, with formaldehyde candles, "because the doctors objected to wet gloves and to having their gloves ruined in the dressing sterilizer by overheating."

BIBLIOGRAPHY

- Hospital Progress, October, 1921, Page 366.
 Public Health Reports, January 27 1922, Page 152.
 The Modern Hospital, March, 1923, Page 271—Safeguarding Sterilization.
 The Modern Hospital, March, 1923, Page 288-289—What About Electric Sterilizers for the Hospital?—Weeden B. Underwood.

The Modern Hospital, March, 1923, Page 294—Sterilizing Drinking Glasses.

The Modern Hospital, July, 1922, Page 90—Dishwashing Machines as Sterilizers.

Hospital Management, May, 1922, Pages 57, 58, 84, 86—Getting 100 Per Cent from Sterilizers, by William Herzog.

Hospital Management, May, 1922, Pages 68, 69—Sterilizing a Cake of Ice.

The Modern Hospital, March, 1922, Garbage Can Sterilizer.

The Modern Hospital, September, 1921, Page 252—Using Sterilized Materials.

The Modern Hospital, September, 1921, Page 254—Sterilizing Bedding in Small Hospitals.

The Modern Hospital, September, 1921, Page 254—Sterilizing Used Gauze.

The Modern Hospital, June, 1921, Page 554—A Sterilizer Control That Is Absolute.

The Modern Hospital, November, 1920, Pages 366, 367—Adequate Sterilization of Gloves.

The Modern Hospital, November, 1920, Page 434—Sterilization of Rubber Gloves.

Hospital Management, November, 1920, Pages 88, 89—How to Sterilize Gloves.

The Modern Hospital, September, 1919, Page 232—Steam Sterilization in Long Narrow Tubes—A. Wayne Clark.

The Modern Hospital, May, 1919, Page 367—Certainty in Sterilization, A. R. Warner, M. D.

The Modern Hospital, April, 1919, Pages 281, 282—High Pressure Dressing Sterilizers or Autoclaves—Scanlan, Larson and Clark.

The Modern Hospital, January, 1919, Page 79—Sterilizing Equipment for Small Hospitals.

The Modern Hospital, January, 1918, Page 73—The Gem Sterilizer.

The Modern Hospital, February, 1917, Pages 157, 158, 159, 160, 161—The Year's Progress in the Construction of Sterilizing Apparatus by American Manufacturers.

The Modern Hospital, January, 1917, Pages 13, 14, 15, 16—Some Facts and Fallacies of Sterilization—A Wayne Clark.

The Modern Hospital, September, 1916. Sterilization of Rubber Gloves, Dr. A. R. Warner.

The Modern Hospital, October, 1915. Wet Versus Dry Sterilization (Rubber Gloves).

The Modern Hospital, July, 1915, Page 60—Home Sterilized Catgut.

The Modern Hospital, June, 1914, Pages 390, 391—Sterilization of Rubber Gloves.

The Modern Hospital, January, 1914, Page 61—A New Instrument Sterilizer as Suggested by Dr. Fred Kuhn, Vienna.

The Modern Hospital, December, 1913, Page 268—Sterilizing Rubber Gloves.

The Modern Hospital, October, 1913, Page 28—Improvements in Placing Sterilizing Apparatus, and the Prevention of Escape of Steam Into the Room.

The Modern Hospital, October, 1913, Pages 141, 142—Typhoid Stool Sterilizer.

"Bacteriology for Nurses," by Mary A. Smeeton—The MacMillan Company, New York City, 1920. Chapter III "Sterilization of Glassware," Pages 25-29.

"Applied Bacteriology for Nurses," by Charles F. Bolduan, M. D.—W. B. Saunders Company, Philadelphia, 1920, Pages 43-47.

"Bacteriology for Nurses," by Harry W. Carey, M. D.—F. A. Davis Company, Philadelphia, 1920, Pages 17-22.

"First Lessons in Bacteriology for Nurses," by M. E. Morse, M. D.—W. B. Saunders Company, Philadelphia, 1919, Pages 17 and 18.

"Modern Methods in Nursing," by Georgiana J. Sanders—W. B. Saunders Company, 1922, Pages 422-430, 459-463, 474, 454, 458, 463, 463-472, 472-473, 430.

"The Principles and Practice of Nursing," by Bertha Harmer, B. Sc.—The MacMillan Company, 1922, Pages 246-247, 250-254.

"The Operating Room and the Patient," by Russell S. Fowler, M. D.—W. B. Saunders Company, 1907.

Smart, (R.) The Sterilization of patients, operators, assistants, instruments, dressings, etc, with brief resume of after treatment from notes taken while attending clinics at St. Mary's Hospital, Rochester, Minn.

Wellcome, (H. S.) The evolution of antiseptic surgery; an historical sketch of the use of antiseptics from the earliest times. London and New York, 1910.

Knot (J.) Asepsis, Antisepsis and Listerism; ancient, medieval, renaissance and modern. St. Paul, M. J., St. Paul, Minn., 1912, xiv, 325-337.

Barnes, (W. H.) An improved device for Arnold sterilization. J. Am. M. Assn., Chicago, 1920. (B. 565.)

Bentzen, (C. F.) Dry sterilization of instruments. Tr. Ophth. Soc. U. Kingdom, Lond., 1922, xlii, 283-285.

Leigh, (S.) The new antiseptics. Internat. J. Surg., Burlington, Vt., 1921, xxxiv, 416-420.

Nelken, (A.) What is meant by surgical asepsis? Mod. Hosp., St. Louis, 1919, xiii, 30-32.

Meissner, (S. O.) Erfahrungen uber asepsis und Antisepsis im Reserve-lazarett. Beitr. z. klin. Chir., Tubing., 1916, xcvi, (Kriegschirr. Hefte) 251-254.

Leigh, (S.) The present status of surgical cleanliness. Internat. J. Surg., New York, 1917, xxx, 241-243.

Crouzel, (E.) Procède pratique de sterilisation des instruments de chirurgie sans autoclave. Repert. de pharm., Par., 1922, 3. s., xxxiv, 33.

Logan, (O. T.) Five years' experience in aseptic surgery in an inland hospital. China, M. J., Shanghai, 1916, xxx, 20-26.

Respectfully submitted,

Henry Hedden, M.D., Chairman

Louis R. Curtis

SPECIAL REPORT OF SUB-COMMITTEE ON X-RAY DEPARTMENTS AND WORK

In this paper it is not intended to dip deeply into either the purely medical aspect of X-Ray diagnosis and therapeutic treatments nor the physics of X-Ray phenomena but rather to deal in a general way with problems of installing and operating the department.

I would suggest that where it is possible the department should not be linked up with any other but should be an entity and further

that no laboratory should be conducted without a qualified physician as Roentgenologist in charge.

The first consideration in establishing an X-Ray laboratory is the basis on which it shall be operated so far as charges and the compensation of the Roentgenologist and his assistants are concerned. Roentgenology is properly beginning to receive recognition as a highly specialized branch of medicine and the term Roentgenologist should mean a physician who has devoted the same time and study to the work as would be expected in any other specialty. He should not be expected to perform laboratory drudgery nor routine work within the capacity of a qualified technician, but should, however, be responsible for the entire work of the laboratory and especially for all reports and for all therapeutic treatments. He might well be permitted to have a practice (not a laboratory) outside the institution and to bring his patients to the hospital for examination or treatment just as any member of the medical staff may do. His own financial arrangements with such patients would no more concern the hospital than would any fees charged private patients for professional services. The same scale of charges for X-Ray work should apply as in the case of any other private patients. No charge should be permitted for professional services in the laboratory save the regular established list of charges and this point should be fully covered in the agreement.

Experience has shown that by far the best arrangement is for the hospital to own the laboratory and all equipment and to conduct the same on the same basis as any other department, paying stated salaries.

The hospital alone will be responsible for the installation and maintenance of adequate equipment to meet the growing demands by nearly all branches of medicine. The question of the amount of charges will be the concern of the hospital only and the restriction of X-Ray work for free and low pay patients may be eliminated. It will be easily understood that a Roentgenologist whose compensation depends on the earnings of the department will not look with favor on a very large amount of free and low pay work, while a hospital which treats many free patients and especially one where a great deal of investigative work is done, will of necessity have a heavy proportion of free work.

In a considerable number of institutions the X-Ray laboratory is operated somewhat as a concession. In some cases the Roentgenologist provides all apparatus, supplies and assistants and retains all fees, with the understanding that free or low pay patients will be cared for free or for fees within their means.

Another arrangement is where the hospital owns the laboratory and apparatus, and furnishes all supplies and assistants and pays the Roentgenologist a small salary and a percentage of fees. Still another is where a portion of the fees but no salary is paid.

I think it will be found that in hospitals doing much free work, no schemes where the compensation depends on earnings is mutually satisfactory and further if it is profitable for an individual to operate the laboratory, it would probably pay if conducted by the hospital on a straight salary basis, although we might possibly find less care in keeping down expenses and would certainly do more unprofitable work.

While the ideal arrangement is to have a full time man, it is not always possible, because the work which should properly be done by him would not keep him fully occupied and the earnings would not justify the expense. It will usually be found practicable to secure the services of a qualified Roentgenologist on a part time basis. With competent technicians to do the routine work, leaving only the interpretation of radiographs, fluoroscopic examinations, direction of treatment and unusual examinations, to the Roentgenologist, it is probable that less than one-half the working days would suffice.

In this connection, the wisdom of conducting an extended course of instruction for physicians looking toward specialization in Roentgenology, and for nurses and others who desire to qualify as technicians, is well worth considering.

A comprehensive record of costs should be kept. In many institutions it is thought that X-Ray departments are very profitable, where, as a matter of fact, if all expenses properly applicable were charged, the profits would vanish. A charge of 30 per cent for depreciation and obsolescence is not too high on transformers and similar apparatus.

One of the difficulties which beset all laboratories is the wasteful way in which some members of the medical staff will use the facilities which are offered and this might be mitigated if the actual cost were known.

While it is a matter of administration rather than apparatus and equipment, it might be well to suggest the advisability of having both the corporation and the Roentgenologist thoroughly protected by insurance against claims for malpractice.

In a well conducted laboratory, the burden of expense may very often be reduced by building up a clientele outside the hospital, but work should be done only on request of physicians who are caring for the patients. The practice of making radiographs for lay

people who many times wish to use them as a basis for litigation is not commended and is likely to entail trouble in court appearances and not infrequently the Roentgenologist is compelled to give what amounts to expert testimony without compensation.

The question of space to be devoted to this department deserves serious consideration. A location easily accessible from all wards and private rooms is greatly to be desired. The following rooms may be classed as essential for even a small installation: One room of sufficient size to admit of both the radiographic and fluoroscopic tables being accommodated. It should be so arranged that light may be wholly excluded when used for fluoroscopy. A small room in close proximity to serve as a dark room; a room connected with the first named room, provided with lavatory facilities, to serve as a preparation room; a room for examination of plates or films, consultations, filing records and the business office, and a comfortable waiting room. There will also be required a storage room for exposed films, which should be conveniently located, but must be fireproof and conform to the regulations of the law and fire insurance underwriters.

With a large institution we would expect to find as a minimum two radiographic rooms, one fluoroscopic room, one preparation room, a diagnosis room for the exhibition of plates and films, two or more treatment rooms, an office for the Roentgenologist, a waiting room and a room for storage of films. Convenience and economy are best served by having each separate unit complete in itself in a separate room in order that when a number of technicians are employed different classes of work may be carried on simultaneously.

Special attention should be given to the ventilation of fluoroscopic, treatment and dark rooms.

The measures to be taken for the protection of patients, workers and others may be included under this heading, except in rooms where the high voltage ray is used in deep therapy, where a wainscoting of lead 1-16 to 3-32 inch in thickness and eight feet high on all partitions next to rooms which it is desired to guard will suffice. Doors in the partitions should be covered and provided with self-closing devices. In treatment rooms, protection must be provided not only to adjoining rooms but also to rooms on floors above and below. Side walls, floors, ceilings should all be covered with lead not less than $\frac{1}{4}$ inch in thickness, and where there is any possibility of damage from secondary ray, the lead must be covered with wood, plaster board or some other similar material. In this connection it is well to add that the secondary ray will not reach far from the material in which it is excited, and in all but

high voltage treatment ray it may be neglected without harm.

The operator cannot be adequately protected by a screen, and booths are now considered essential. Booths should be arranged to afford the operator a clear view of the patient.

We are compelled to revise our old ideas with regard to X-Rays moving only in straight lines from the tube. We now know that scattered or diffused ray in very considerable quantities may be detected, even with a shield of lead of sufficient thickness to stop the direct radiation intervening, and further that unless the lead protection is covered with some material to stop secondary ray, it may—especially when 200,000 volts or more are used—affect technicians or others who are subjected to long and frequent exposures.

In the matter of apparatus, there are numerous concerns manufacturing Roentgenological apparatus, nearly all of whom lay claims to special features of merit, but nearly all apparatus placed on the market by reputable houses will, if properly installed and operated, give uniformly satisfactory results. It is wise, however, to select the most simple machine which will produce the desired results, and further, if conditions will permit a unit to be used for one class of work only, it will be found advantageous.

A proper co-ordination of personnel, apparatus, space and location is much more important than the question of what make of machines shall be used.

If the institution is supplied with alternating current, all machines would of course be of the A. C. type, but where direct current only is available some question may arise. In a small installation the D. C. machine would be satisfactory; but in a large one, where a number of machines are used, the installation of a rotary converter of large capacity in the power plant and the use of A. C. machines is well worth considering as it may be expected to eliminate seventy-five per cent of machine troubles. This would, however, require special wires to all points where the apparatus (portable or otherwise) would be used. In selecting transformers, those with ample capacity for the work should be chosen. Overloaded machines are troublesome and short lived.

The minimum equipment for a small installation where deep therapy is not administered would include the following:

One Transformer Unit with switches and aerals to connect with either radiographic or fluoroscopic tables.

One Radiographic Table

One Fluoroscopic Table

One Bucky-Potter Screen

One Developing Tank

One Stereoscope

One Diagnostic Box

A supply of Coolidge Tubes

A supply of Screens, both Fluoroscopic and Radiographic

A Tube Stand for Superficial Treatments

Miscellaneous small items are not included.

For large institutions, where greater demands are made in volume and variety of work, the equipment would necessarily require additions and a different arrangement. The following would probably be required:

A separate Transformer for the Fluoroscope.

Two, instead of one, Radiographic Units.

A Portable Outfit of sufficient capacity to perform any duty except deep Therapy.

In addition to its use in wards and operating room, it would serve as a substitute for any machine which might be out of order.

Provision for both Fluoroscopic and Radiographic work is, at least one operating room, and the plaster room is necessary. The Portable Outfit would serve if proper connections and tables are installed. So far as I am informed, no satisfactory combination fracture and Fluoroscopic table is on the market but one which promises well is in process of manufacture.

Operating tables equipped for Fluoroscopic work, while not cataloged by the hospital furniture manufacturers, are easily constructed as the only essential features are an unobstructed aluminum table top with the usual fluoroscopic box arranged for movement in the ordinary way beneath. The usefulness of this type is rather limited being confined in the main to the removal of foreign bodies.

In installing Transformers, it is very desirable to have them out of the sight and hearing of the patients. Every precaution should be taken to prevent accidents by contact with tubes, wires or meters in the high tension circuits.

Main line feed wires are usually much too small, and attention to this detail will avoid excessive line drop and insure stability of voltage if the source is adequate.

Aerials are now usually constructed of brass tubing—with no sharp projections, all angles being rounded—instead of wire, and although their cost is higher than wire, they are much more satisfactory. Conona and the attendant ozone is eliminated.

Transformer units for deep therapy will probably soon be demanded in all large institutions but this branch of Roentgenology has not yet crystallized to a degree which will permit unqualified

statements as to apparatus, methods or results.

In deep therapy transformers we find a variety of types. In some the rectification is so arranged that only one-half the waves are used; in others the two sets of waves are rectified separately and two tubes may be operated; in still others both sides of the wave are rectified for use in one tube. The use of two tubes on one machine is attended with some inconveniences in that there can be no great variation in the quality of current delivered to the two tubes and it is almost necessary to cut off the current every time a patient under treatment is moved. The only point for commendation in the two-tube machines is the reduced initial cost of installation. One or two machines are arranged for multiple tube connections on one circuit but they present difficulties in operation.

The most economical machine is one which rectifies both waves and operates one tube. If accurate dosage is to be administered, the department must be equipped with a sphere gap and an ion-acquaintimeter or other apparatus for measuring the ray.

Every high tension deep therapy machine should be thoroughly standardized before using. It will be found that the sphere gap and milliammeter do not tell the entire story, and variations in the penetrating power of the ray delivered by different machines, even though they are of the same manufacture, will always be found. The reason is, briefly, that the sphere gap is a measure of peak voltage only and does not indicate the average throughout that portion of the wave which is picked off by the rectifier and that the milliammeter will register the volume of current regardless of its voltage.

The ionacquaintimeter, which is simply an electroscope in a convenient form, is not an absolute measure of the ray but is usually used on a percentage basis. That is, when a reading is taken at the point where the ray strikes the patient, another at a point opposite. A simple computation will determine the amount—assuming that a dose equal to the full skin tolerance is administered—which has passed through, and further, if the machine is properly standardized it is simple to determine what percentage of the skin dose has penetrated to any given point.

There are a number of tables offered for this kind of work but it is probable that one which has the tube in a fixed position under the table with ray projected up through an opening in the top controlled by a diaphragm and with the tube enclosed in a lead protected box will be found the most satisfactory. In the use of this type, care must be taken to cover the ceiling with lead if the rooms above are occupied. This applies to rooms several floors above.

The matter of records has not yet received the attention it

deserves, especially if the maximum value is to be obtained, not only in the treatment of the individual patient, but in investigative work and in improvement of diagnosis. There appears to be no question that a patient undergoing X-Ray treatments should be the subject of a complete history, physical examination, case notes and careful records of every kind and the end result is of the highest importance. Complications of all kinds should be taken into account and laboratory reports as to blood conditions before and after treatments all are essential parts of such a history.

In thyroid patients, the basal metabolism findings are essential to intelligent treatment. Every unusual symptom after treatments should be scrutinized carefully by both the Roentgenologist and clinician. As the first step in the routine, the clinician should indicate fully the scope of the examination or treatment desired in the form of a requisition and any information which might in any way be a factor in the examination or treatment should be a part of the requisition. It should also be the prerogative of the Roentgenologist to make further examinations if his findings indicate that other lesions demonstrable by X-Ray are present and would be taken into account in making a complete diagnosis.

A card index of patients, connected up with the usual clinical history, is necessary and an index by disease or anatomical divisions is desirable. The cards should contain an exact copy of the report which is submitted to the clinician to become an integral part of the clinical history.

In so far as is possible, a system of carefully checking all operative and post-mortem findings against X-Ray reports should be maintained.

Films should be so kept as to be readily accessible.

Some very interesting work is being done in blood and tissue changes induced by X-Ray which will probably reach publication during the current year.

In conclusion, administrators of hospitals are urged to place the X-Ray laboratory on a higher plane than has been accorded it in most institutions. Instead of a picture shop and a place for the administration of empirical doses of X-Ray, it deserves to be regarded as a department of the highest importance wherein the skill and ability of the Roentgenologist is perhaps the highest factor.

Respectfully submitted,

Louis R. Curtis, Chairman

MR. CURTIS: In the report submitted—which is really little more than some general observations based on a rather long ex-

perience with X-Ray work—I purposely avoided entering into technicalities which might involve much explanation.

I recall that away back in the pioneer days of the X-Ray department, about 25 years ago, we purchased an X-Ray outfit and when it was installed we looked about for someone to operate it. No one could be found; in fact there were only two or three men in Chicago who knew much about it. With the bravery of complete ignorance, I undertook the job myself. The field of the work was very narrow, being confined to diseases and injuries of the bones. We did fairly well and fortunately inflicted no burns, but that was only a matter of luck, for we knew little or nothing about the dangers of X-Rays. I have followed the progress of the work with great interest from the beginning. After the dangers of X-Rays were recognized, we did some investigative work relating to scattered and secondary rays. We did not establish the rather intricate hypothesis we had in mind but did ascertain that secondary ray was very low, had very little penetration, and with the quality of ray then employed there was very little danger unless subjected to its action frequently and for long periods.

I feel that this department has not received due consideration from the administrative side, except when finances are concerned.

With the medical profession the Roentgenologist does not seem, except in a few instances, to have a well defined status. We see places where little more is expected of the laboratory than making pictures and operating the machinery; the clinician making all diagnoses and prescribing treatments without consultation with the head of the department. I have known of numerous cases when wholly impossible requests were made.

On the other hand, it is *almost* routine in some institutions to expect the Roentgenologist to furnish a ready made diagnosis and to administer treatment, without information as to the clinical picture. It goes almost without saying that in cases where there is any pathology, efficient work may be expected only when there are close working relations between the laboratory and the clinician.

Another point I desire to accentuate is that no hospital is justified in conducting an X-Ray department in a manner which will impose limitations on its use in cases when it is really necessary in making diagnosis or in the treatment of patients.

It is often a matter of complaint by members of the staff that the rates charged are unduly large, but I would venture the guess that if all expenses—salaries, maintenance of employees, clerical work, interest on the investment, laundry work, janitor service,

space, current-replacements, depreciation, obsolescence, overhead, bad accounts, rebates, etc.—were taken into account, no fair minded disinterested person would regard them high.

REPORT OF COMMITTEE ON GENERAL FURNISHINGS AND SUPPLIES

The direction of the activity of your Committee on General Furnishings and Supplies was determined when the chairman received a letter on March 1st, 1923, from the Division of Simplified Practice of the United States Department of Commerce, which had been written at the suggestion of the Executive Secretary of the Association.

The letter called attention to the work of the Division in the simplification and standardization of manufactured commodities.

After some correspondence with the Division, the committee decided to undertake a study of standardization and simplification as they apply to hospital furnishings and supplies.

Although many commodities had been suggested for study in this connection, it was decided to limit it to a single article—the hospital bed—for its definitely basic value in the development of similar studies of other commodities. Furthermore, beds in general use had already been simplified and standardized and the recommendations of the Division of Simplified Practice had been accepted by the various associations of manufacturers of bedsteads, springs and mattresses. The hospital bed, however, had not been included.

Even with this restriction, the committee can only present a preliminary report, in view of the exceeding complications, the shortness of the time and the absence of technical help. Furthermore, the preliminary report deals with sizes only and not with other material factors, which must be left for future report.

However, one important asset has been developed—the hearty support and cooperation of the Division of Simplified Practice of the Department of Commerce. Furthermore, to give an official character as well as significance to the investigation, Mr. Hoover has appointed the chairman of this committee as his representative in making this survey. This cooperation has already been of much assistance and the committee feels that its value will greatly increase as the study proceeds and as other articles are subjected to study.

A questionnaire was prepared by the committee, with the assistance of the Division of Simplified Practice and of the Executive Secretary, and was sent to 1,100 hospitals in this country and Canada.

It was found necessary to send a second questionnaire before a satisfactory number of replies was received to justify even this preliminary report.

At the same time a somewhat similar questionnaire was sent to the manufacturers. Although some reports have been received, they are insufficient or have been too long delayed for the purposes of this study. The committee feels that the manufacturers may not have understood the purpose, or that they may have been averse to committing themselves by giving the data requested. Some insisted that it was more expedient for the hospitals first to express their desires and that then the manufacturers would necessarily comply with them.

The committee has been informed by the Division of Simplified Practice that this is not an uncommon experience, and the assurance is further given that it will be able to secure cooperation from the manufacturers within a reasonable time. It is but fair to state that one of the leading manufacturers sent a most comprehensive report of their output during the first nine months of the year.

Altogether 363 replies have been received from hospital authorities, of which 101 have not been included in this report for various reasons: some were incomplete, some failed to understand what information was desired, some of the figures were manifestly wrong (as 150 inches for the length of the beds), some came too late for classification. It was deemed advisable to omit children's beds, so as to still further simplify the study.

No more potent argument for this investigation is necessary than the mere statement of the fact that there were 319 variations in dimensions alone of the 59,178 beds included in these reports.

The height figures—which, according to the reports received, varied from 12 to 40 inches—cannot be accepted as of much value for the reason that some are inclusive, others exclusive, of castors, and the variations in the height of the castors themselves are indeterminate. The castors reported varied from $2\frac{1}{2}$ to 8 inches. The entire matter of the height must be made the subject of further inquiry.

In reporting the width and length of the bed, the hospital authorities were asked to send measurements of the bed-springs and not of the beds themselves.

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Eliminating the height, the variation of width and length is shown in the following tabulation:

Width	Length	Beds	Width	Length	Beds
27	78	150	35½	79	7
29½	70	6	36	68	2
29½	72	1	36	70	81
30	72	3261	36	70½	178
30	74	198	36	71	27
30	75½	1060	36	72	11697
30	76	81	36	72½	86
30	77	7194	36	73	1497
31	75	3022	36	73½	116
31	76	63	36	74	2681
31	79	95	36	74½	2264
31	80	65	36	75	4061
32	72	49	36	76	4472
32	75	75	36	77	357
32	77	21	36	78	6575
33	72	110	36	80	328
33½	81	8	36	81	320
34	72	257	36	82	34
34	74	8	36	84	234
34	75	7	36	86	1
34	76	5	36	90	75
34	77½	10	36½	73	55
34½	70½	44	36½	73½	81
34½	72	32	36½	74	1
34½	74	226	36½	75	3
34½	74½	39	36½	76	38
34½	75	225	36½	78	125
34¾	75	3	37	72	755
35	70½	26	37	72½	8
35	72	426	37	73	18
35	73	6	37	74	556
35	74	132	37	75	68
35	75	210	37	76	481
35	75½	28	37½	78½	104
35	76	23	38	72	4
35	77	22	38	73	235
35	78	35	38	74	2
35	80	45	38	75	87
35	84	22	38	78	121
35½	77	1	38	81	57
35½	78	81	38	84	4

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Width	Length	Beds	Width	Length	Beds
38½	73½	7	42	74	152
39	72	108	42	75	439
39	73	96	42	76	450
39	74	200	42	78	514
39	75	245	42	80	31
39	78	91	42	82	30
40	72	52	42	84	9
40	74	57	42½	74½	8
40	75	17	43	72	15
40	77	30	43	74	12
40	76	3	43	90	53
40	84	64	44	77	5
41	71	1	45	72	16
41	72	87	45	74	145
41	74	13	45	83	15
41	75	10	46	72	29
41	76	58	48	72	20
41½	72	2	48	73	25
42	72	528	54	72	162
42	73	39	54	75	1

Total59,178

The variation in the length of beds is shown in the following table:

Inches	Beds	Inches	Beds
68	2	77	7630
70	87	77½	10
70½	248	78	7695
71	28	78½	104
72	17613	79	102
72½	94	80	469
73	1971	81	385
73½	204	82	64
74	4399	83	15
74½	2311	84	333
75	8527	86	1
75½	1060	90	128
76	5671		

59,178

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In the following table, the number of beds of the different widths is shown:

Inches	Beds	Inches	Beds
27	150	37½	104
29½	7	38	510
30	11,794	38½	7
31	3245	39	740
32	145	40	223
33	110	41	169
33½	8	41½	2
34	287	42	2,246
34½	567	42½	8
34½	3	43	80
35	975	44	5
35½	89	45	176
36	35,102	46	29
36½	303	48	45
37	1886	54	163
			59,178

These figures—which represent 59,178 beds in a great diversity of hospitals—while not to be considered conclusive in any respect, are at least suggestive:

(a) The great preponderance of the 36 inch wide bed (35,102) shows at least the growing tendency to adopt this size for ward purposes. One of the manufacturing firms has reported that 76 per cent of their output for the year has been the 36 inch bed.

(b) The 30 inch bed is also popular (11,794), but mainly in homes for chronic diseases and city and county institutions.

(c) The 42 inch bed (2,246) is most commonly employed in private rooms where convenience and economy are, perhaps, sacrificed for the greater comfort of the patient.

(d) Some of the larger sizes may have been purchased without full knowledge of hospital requirements.

(e) The report on beds for general use made in Simplified Practice, Recommendation No. 2, applied to the following:

Full size, 54 inches

Three-quarter, 48 inches

Twin, 39 inches

Single, 36 inches

It is easy to foresee what would happen if hospital beds had been standardized to 30, 36, 39 and 42 inches and the 59,178 beds represented in this survey had been purchased accordingly.

The following table shows the figures pertaining to the beds of the specified widths now in use and those which would have been in use under simplified practice:

Width	Actual	Widths Standardized	Simplified Practice
30	11,794	27 -33	15,451
36	35,102	33½-37½	39,324
39	740	38 -41	1,649
42	2,246	41½-54	2,754
	<hr/> 49,882		<hr/> 59,178

In other words, there are already 49,882 beds of the suggested standard—almost 85 per cent.

This would certainly not entail any great hardship or seriously sacrifice anyone's feeling of individuality. The economic value is self-evident.

(f) Further study may show that the sizes may be confined to 33, 36 and 42. There are many who believe that no bed should be less than 33 inches in width.

(g) The Government specifications call for beds 32 and 36 inches wide. Wider beds, however, are certain to be desired.

(h) Beds with a length of 72 inches are evidently the most popular, being represented by 17,613 in this survey; the next being 75 inches with 8,527, 78 inches with 7,695 and 77 inches with 7,630.

(i) The Simplified Practice Recommendation No. 2 on beds for general use recommends reduction of the variations in length to 74, 76 and 77 inches.

(j) Such a recommendation for hospital beds would be of enormous saving. However, further investigation will doubtless show that it will be necessary to include the 72 inch bed in the list, and that the 74 or 76 and probably 77 inch bed may be eliminated. Some provision will be required for the occasional patient who is over 6 ft. 3 in. in height.

The committee greatly regrets that it has been impossible to make a study of the construction and types of beds for hospital purposes. These and other correlated subjects remain to be investigated.

In conclusion, your committee presents the following recommendations:

1. That the study of hospital beds be completed in as short a time as possible, to the end that the Division of Simplified Practice may make recommendations which can be adopted and put in practice by the manufacturers.
2. That studies in simplification and standardization of other hospital furnishings and supplies be pushed rapidly forward.
3. That technical help be provided so as to conserve both time and expense.
4. That the cooperation of the Division of Simplified Practice be continued and encouraged.

The committee desires to express thanks to Mr. Hoover, Mr. Durgin and Mr. Hudson, of the U. S. Department of Commerce, to the President and Executive Secretary of the American Hospital Association and to the hospital officials who have furnished the data upon which this report has been based.

Respectfully submitted,

MARGARET ROGERS, *Chairman*.

MARY L. KEITH,

ANNETTE B. COWLES.

MISS MARGARET ROGERS: In presenting the report of the Committee on General Furnishings and Supplies I wish to mention that this report was based on data which had been tabulated two weeks ago and therefore cannot take into account much valuable information which has been secured since that time.

I cannot refrain from commenting upon the increasing number of reports from manufacturers which we are receiving day after day. They indicate their responsiveness and their interest in this study. Quite a few have given explicit details of their output during the year which will be of great value in conclusions which the final report should present.

Finally, may I express the hope that through the activity of the Association and of the committee and the cooperation of the Division of Simplified Practice, our variations in beds, springs, castors, mattresses, linens, blankets, china and many other commodities may be reduced to a legitimate minimum and that the money thus saved be utilized for further helpfulness for those stricken with disease.

REPORT OF THE COMMITTEE ON OUT-PATIENT WORK

Previous reports of the Committee on Out-Patient Work of the American Hospital Association have discussed and considered the many phases of dispensary and community work which is generally classified as out-patient work. The result of this past effort is seen on every hand and your present Committee felt and still feels that the most constructive thing it could do would be to pass on to the Association and others interested in hospital work the tentative draft of standards for dispensaries submitted to the American Hospital Association by the Associated Out-Patient Clinics of New York City, for comment and criticism.

Your Committee has held one meeting since the last conference of the Association. This was in April, 1923, at which time a redraft of the Associated Out-Patient Clinics material was written. This has been submitted to a large number of individuals; the comments digested, and the whole herewith presented as the 1923 report of the Committee on Out-Patient Work of the American Hospital Association.

For the past two years the Committee on Dispensary Development and the Associated Out-Patient Clinics of the City of New York have been studying the many problems presented by the dispensary in its role of a community asset.

The Associated Out-Patient Clinics asked the American Hospital Association to comment upon the tentative draft of Practical Standards for Out-Patient Clinics. This was referred to our Committee. These Standards applied peculiarly to New York. The Committee members as individuals have studied them and in so doing have prepared a restatement which is more generalized and along national lines, which the Committee believes to be of more constructive value. There can be no claim for originality on the part of the Committee in this rearrangement which is enclosed and to which we invite your attention, and upon which we request your comment and criticism. We ask this in order that a redraft may be prepared and presented at the next meeting of the American Hospital Association.

It is the hope of the Committee that as a result of a general discussion the American Hospital Association may make a statement of a basic dispensary policy which will embody the medical, social, philosophical, public health, and other phases of Out-Patient work.

IDEALS AND POLICIES FOR THE ADMINISTRATION OF CLINICS, DISPENSARIES OR OUT-PATIENT DE- PARTMENTS DOING OUT-PATIENT WORK

FUNCTION

It is the responsibility of an out-patient clinic to provide correct diagnosis and adequate treatment for ambulatory patients; to instruct its patients so as to assist in the prevention of disease; to aid in investigation of the causes of disease and of methods of treatment and prevention; and to provide educational facilities and useful experience for physicians, medical students, interns, nurses, pupil nurses, social workers, and others concerned with the care of the sick, or the promotion of health.

RELATIONS

The out-patient clinic must comply with the dispensary law and the regulations of the public authorities.

COMMUNITY

The out-patient clinic should cooperate with charitable societies and other agencies through examination of their beneficiaries and reporting the findings (under proper professional restrictions) to the societies interested.

Evening and special clinics should be established to meet the peculiar needs of the people or of the district served.

Special effort should be made to enable the clinic to deal satisfactorily with persons not speaking English.

HOSPITAL

The out-patient clinic furnishing diagnosis and treatment of the sick should be a part of, or affiliated with, a hospital.

When an out-patient clinic is part of a hospital, the executive head of the out-patient department should be responsible to the superintendent of the institution.

MEDICAL

Those policies of out-patient service which affect private medical practice should be established and revised as necessary, in consultation with the medical profession of the community through appropriate representatives from the county and other medical societies.

ORGANIZATION

The governing body of a hospital should have a committee or its equivalent responsible for the out-patient clinic. There should be an out-patient committee of the medical staff. There should be an executive head for the out-patient clinic, to whom all administrative personnel shall be responsible.

MEDICAL

The professional staff of the out-patient department should be drawn from the hospital staff and not be a separate staff.

The director, or responsible head, of each service should be continuously in charge.

Each department of the out-patient clinic should have a chief who should be continuously responsible for carrying out the medical policies and maintaining the working standards of the clinic.

Interns should be assigned duties in the clinic, under staff supervision.

Staff conferences for discussion of both ward and clinic cases should be held at regular intervals.

In order to promote coordinated medical work, the professional responsibility for each patient at any one time should be fixed upon a single department or physician.

NON-MEDICAL PERSONNEL AND FACILITIES

Lay personnel and facilities should be provided so that adequate consultation among the various departments (including referral and transfer of patients) will be available.

Trained technical assistants—executive, nursing, social service, clerical, etc., to whom duties may be delegated—should be provided so that the time of the medical staff may be conserved without loss of professional relationship or responsibility.

Adequate facilities and equipment should be provided to make possible the satisfactory diagnosis and treatment of patients. The minimum facilities required in the way of space, equipment, convenience for patients, and the best procedure within the clinic, will vary with the types of disease treated, and should be recommended by the various professional groups of the clinic or community.

SOCIAL SERVICE

Social service in a hospital or out-patient clinic is for the purpose of aiding the physician in dealing with those factors in the personality and environment of patients which bear upon the medical situation.

The social service department should be an integral part of the institution.

The head worker or director of the department should be responsible to the chief executive of the institution.

PROCEDURE

ADMISSION

In determining the admission of individual cases to an out-patient clinic, three factors need to be considered with due consideration of local community conditions; namely, the income of the patient or family, the size and responsibilities of the family according to a reasonable standard of living, and the character and probable cost of adequate medical treatment for the disease or condition found.

The gathering of social and financial information necessary to determine admission under the above policy should be performed by a person with training in social work.

The admission of patients should be by appointment at a definite day and hour, as a measure conserving the time of physician and patient, and promoting economy of space and equipment.

The number of patients admitted during a given session should be controlled in proportion to the facilities available in relation to space, equipment and personnel. Standards defining the maximum number of patients who should be seen by a physician during a given period should be outlined by the various professional groups of the clinic or community.

FEES

It is desirable that stated fees be charged patients for admission and that additional charges be made for medicine, appliances, and other special procedures or material.

Fees should be remitted in whole or in part to patients unable to pay.

The fee list should be easily accessible throughout the institution.

RECORDS

The records of each patient should be so filed that all information about the patient may be studied as a whole.

The records of the in-patient and out-patient should be unified. Records should not be carried or inspected by patients.

Definite responsibility should be fixed for the supervision of records as to completeness and as to proper care.

Standards for records should be outlined by the appropriate professional group of the clinic or community.

INSTRUCTION OF PATIENT AND FOLLOW-UP

It is the responsibility of the out-patient clinic to endeavor to retain the patient under treatment until discharged by the physician.

It is the responsibility of the physician to determine what instructions shall be given patients, to indicate when patients should return, and the conditions under which delinquent patients shall be dropped, or be followed up by mail or by personal visit.

It is the responsibility of the social service department to assist the physician in the instruction of patients, ascertain facts pertinent to their continuance of treatment, maintain an "expected return" index, review the records of patients, and after presentation of facts to the physician, to carry out or supervise efforts to bring the patients back to treatment.

A follow-up system may be applied to an entire out-patient clinic, or only to selected types of cases. It is preferable to employ a thorough follow-up system for a selected disease or group of diseases, rather than a partial or incomplete system to a larger group.

Results should be reported monthly to the staff.

ACCOUNTS, STATISTICS AND REPORTS

The financial accounts should show (a) the receipts from the various classes of fees for the out-patient clinic as a whole and for each section; (b) receipts from all other sources, as from endowments, public funds, etc., suitably classified; (c) expenses for the clinic as a whole and for each section, classified into the following divisions:

1. Medical payroll,
2. Non-medical payroll,
3. Supplies and material,
4. Overhead expenses.
5. New equipment.

A statistical report covering at least the following items should be made monthly and consolidated annually:

New applicants.

Number of new applicants admitted, classified by departments to which admitted.

Number of applicants rejected, with reasons therefor.

Total persons admitted, classified by departments to which admitted.

Total number of visits, classified by departments to which made.

Number of transfers and refers among departments.

The annual report of the hospital should include a report on the out-patient clinic and this should contain (a) statistics; (b) financial facts; (c) a statement of past work and present problems, made by the medical staff, the superintendent, the board of trustees, or any or all of these authorities.

There should be periodical surveys of the work of the clinics as a whole and of each section, for the appraisal of results and the improvement of methods.

The mailing list used by the Committee was made up of members of the American Hospital Association, health officers, nurses, social workers, deans of medical schools, and physicians. Were the Committee to be guided in its conclusion by the congratulatory tone of the letters received, the work of the American Hospital Association in dispensary improvement might well be considered fulfilled. The Committee was convinced that the statement of the Associated Out-Patient Clinics was well worth while and for that reason reissued it in the above form, and feels justified in drawing the conclusion from the expression of the opinions received that the value of the statement of ideas and policies of the American Hospital Association is high indeed.

In presenting the consensus of the received comment the one outstanding note is, that we have perhaps neglected the community and particularly the public health relationship of the dispensary.

FUNCTION

The problem of defining the function of an out-patient institution is complicated to begin with by the lack of uniformity in terms and definitions. Public health work and prevention of disease through education of the public as well as the study of the spread of disease deserves consideration. The fact is not to be lost sight of that the function may vary in different communities, and because of the nature of the organization conducting the institution.

RELATIONS

COMMUNITY

In large cities and in special activities restrictions as to territory covered might well be thought of, as well as the economic relation to the people of the community who are in a position to pay. The importance of out-patient records in relation to disease incidence in the community needs more recognition, and in this connection it would seem worth while to state more definitely the tenfold greater importance of out-patient effort in volume of work done and individuals served. Community relationship might well receive joint consideration by interrelated committees of the

American Hospital Association with other bodies such as the American Public Health Association and the American Medical Association.

HOSPITAL

The out-patient service, being the bulwark between the public and the hospital, requires greater emphasis, as it is usually the weakest department in the hospital. Professionally the out-patient department should be a career which administratively means better facilities, more money, and much greater efforts in the education of physicians, administrators and trustees.

MEDICAL

There was no discussion of this phase. The unanimous acceptance of this policy, while gratifying, was disturbed by one question only: Do they?

ORGANIZATION

GENERAL

There is general accord with this proposition, with emphasis upon the need for competent executive management. Attention is called to the use of **words** and the committee is informed that the professional staff should be part of and not drawn from the hospital staff. The difficulties of one staff are recognized, the time consumed by continuous service, the need of compensation of the physicians, the danger of "freezing out" the younger medical men and women, the bugbear of hospital and outside "politics" are all brought up for consideration. For many of the staff and administrative problems the interesting solution is offered of a separation into one division of the out-patient department for diagnosis, and a second for treatment, with the treatment division subdivided into various service branches.

NON-MEDICAL PERSONNEL AND FACILITIES

The general recognition of the need for more personnel and better facilities is coupled with a realization of the expense. This, however, must not deter advancement of out-patient work, for, while expensive to install and maintain, the returns to the patient and the community justify the outlay. Emphatic comment was received calling attention to the usefulness of nurses, which escaped emphasis in grouping under non-medical personnel; the need of facilities making possible research work upon out-patients, which is often of more practical value than

that done in the hospital; the lack of a more complete statement concerning space and equipment, and the omission of any mention of the pharmacy, which should be under a registered pharmacist.

SOCIAL SERVICE

The comment here might be summed up by saying that the social service department should be a department and as such responsible to the executive head of the institution, holding a consultative relationship to the diagnostic and treatment work of the institution, dealing with the social relations (not personality) and environment of the individual, always remembering that the out-patient is attending a medical institution with all the rights and interest of an individual.

PROCEDURE

ADMISSION

Separation of the problem of determination of costs and ability to pay into its component parts more thoroughly might be attempted, and it must be recognized that it is impossible upon admission to know all the factors before a diagnosis can be made and the required treatment outlined.

Rigid appointment systems are cautioned against, particularly until better organization, increased personnel, compensation for physicians and other problems have been solved.

Mention might be made of the admission of patients for emergency care and also the policy to be followed with communicable disease.

FEES

That fee schedules are an essential is agreed and they should be available. Relief should be furnished before financial ruin sets in. No system yet evolved enables judgment beyond criticism, whether a given case is eligible or not. Criticism is free of the method of application of investigation but not of the policy. The question is asked, what is a reasonable standard of living and how can it be determined.

RECORDS

Unification of records on a physical basis is difficult though desirable. Abstracts, briefs, ready access and exchange are suggested as all that is needful until further study and demonstration proves some method safe and feasible. This presents a worthwhile problem for detailed study by the American Hospital Association Committee on Records.

AMERICAN HOSPITAL ASSOCIATION

INSTRUCTION

The Public Health Nurse has a relationship to the dispensary in this regard even greater in some cases than the social worker.

FOLLOW-UP

The supposedly well person registered as an out-patient might be included specifically and mention could be made of family groups and contacts under this head if the client is a communicable disease case.

ACCOUNTS, STATISTICS AND REPORTS

What progress are the people making who are visiting medical institutions in the cure of their afflictions, might be added. Accounts, statistics and reports are recognized as essential items needing study. Explanation of figures given in reports is often needful and the objective should be to make "statistics" a real statement of the "facts of medical service expressed in figures."

The Committee suggests that the American Hospital Association continue to give consideration to the problem of the dispensary with particular reference to terminology and to the relationship of the out-patient work to the hospital, the medical profession and the public health. It is recommended that for this purpose a special committee be appointed and provided with funds to carry on a more extensive study to the end that there will be produced a basic statement of the American Hospital Association policy regarding dispensary fundamentals.

In conclusion, the Committee wishes to register its appreciation of the interest of the many physicians, hospital workers, nurses, social workers, health officers and others who have cooperated in the making of this report.

Respectfully submitted,

ALEC N. THOMSON, M. D., Chairman.

A. K. HAYWOOD, M. D.

WALTER L. NILES, M. D.

REPORT OF COMMITTEE ON TRAINING SCHOOL
BUDGETS

By George D. O'Hanlon, M. D., Chairman

Just for your information and as a suggestion, because it may be applicable in helping you work the problem out in your own schools, I have prepared a chart* showing the distribution and percentage cost for the various departments with subdivisions for the training school connected with Bellevue Hospital. The budget for the hospital itself, including the training school, is \$2,000,000 in round figures. Of this amount a little over \$200,000 is the budget for the training school proper. The nurses' home for the training school at Bellevue is a separate and distinct institution that is being housed outside of the hospital, so that a very accurate account can be kept of all its expenditures. In this tabulation I have not included the salaries of the graduate nurses. I have included, however, the cost of their maintenance. Now, with many of you, it will be difficult perhaps to work out the budget system for the training school because the two are so closely related that you have to draw the line very definitely as to what is a hospital expense and what is a training school expense. With us we include, except for the maintenance of the graduate nurses, only the actual expenditure for the education and maintenance of the pupil nurse. We just have the six sub-divisions for the expenditure; first, administration, second, the training, and under administration we include the salaries of supervision, which is, superintendent of the training school, the assistant and those in charge of the residence, with office assistants. Under the head of training nurses is included the salaries of instructors, lecturers, office assistants, supplies, books, miscellaneous equipment. Under house-keeping, the salary of the housekeeper, the service, cleaners, room maids, etc., laundry work, supplies and equipment. Under dietary, salaries of dietitian, cooks, assistant cooks, waitresses, etc., together with the kitchen equipment. We have to maintain an infirmary, and under that come the salaries of nurses, maids, supplies and equipment, while we also have the general head of general house and property, including salaries of mechanics, elevator operators, refrigeration, gas, heat and that sort of expenditure. It is impossible to give you any figure by which you could arrive at the necessary amount to be expended for your own school. As it works out in our expenditure, 56 per cent goes for the dietary department, which includes the kitchen and dining room service, together with all food supplies for the nurses and the employees.

*Chart not made available for publication.

The next largest item is that for housekeeping, 18 per cent, which includes the salary of the housekeeper and cleaners, together with laundry work, supplies and equipment of that character. The next largest item is that in the actual educational feature, the instructors, lectures, books and miscellaneous equipment, including the laboratory, 9 per cent. Five per cent goes to the actual administration, which is the salaries for supervision of the training school, while only 2 per cent goes for the care of the sick and 10 per cent for the general house and property. That includes the upkeep. Now were we to include the salaries of graduate nurses instead of charging them for the hospital proper, instead of the training school, they naturally would go under the training of nurses and might change that percentage. It will be very helpful to the committee in making a further report next year or at some future time if some of you will be prepared to tell us, when this paper is discussed, how to separate some of these items of expenditure as between the hospital and the training school.

REPORT OF THE SPECIAL COMMITTEE ON CLEANING

PURPOSE OF THE COMMITTEE

A study of hospital cleaning methods of all sorts.

SPECIAL FUND

The committee has a fund of \$1,000.00 for carrying on this study. This fund will be used for expenses incurred by the committee in carrying out the work. None of the money will, of course, be paid for services of the members of the committee.

REPORT TO THE MILWAUKEE CONVENTION

This report will be of a preliminary nature. It will outline the methods by which the various problems are to be approached and the methods of compiling results. An opportunity will be given at that time for members of the Association to offer additional suggestions to the committee. Following the Milwaukee meeting, the committee expects to begin the detailed portion of its work, and will have a very complete printed report ready for the 1924 convention at a later date. The various topics will be handled by men who have special interest and experience in that phase of the work. The work has been divided as follows:

- (a) All floor cleaning.
- (b) Walls, windows and window screens.
- (c) Rugs, carpets and upholstered furniture.
- (d) Plumbing, metals, etc.

Each of these four topics to be covered by Mr. John A. Wyley, University of California Hospital, San Francisco, Cal.; Dr. Joseph Howland, Peter Bent Brigham Hospital, Boston, Mass., and Mr. Henry J. Southmayd, Mt. Sinai Hospital, Cleveland, O.—all three of the men to conduct the study on all four subjects, their results then being correlated and summarized by the Chairman.

(e) Dishes and kitchen utensils—Dr. H. E. Bishop, Superintendent Robert Packer Hospital, Sayre, Pa.

(f) Terminal disinfection—Dr. D. L. Richardson, Superintendent City Hospital, Providence, R. I., and the Chairman.

(g) Laundry—Mr. Walter Williams, 352 Shiloh St. (Clifton), Cincinnati, O.

(h) Care of surgical instruments—Dr. L. H. Burlingham, Superintendent Barnes Hospital, St. Louis, Mo.

It is the earnest desire of the committee that the final report be arrived at only after the most careful deliberation, so that the report will be authoritative and useful for a long time to come.

Cleaning methods in hospitals are probably the least standardized of any of the procedures in these institutions. Much of the work is done according to antiquated methods, materials often being selected because they are recommended by salesmen, or because they seem to be satisfactory rather than after exhaustive tests to prove their efficiency.

In presenting its results the committee is planning to use, where feasible, graphic forms which will give comparative figures of various methods and materials. The committee will not, however, make recommendations between various brands of materials.

Mr. Williams has already presented an admirable report for the laundry division, and Mr. John A. Wyley has made careful tests of some two hundred cleaning preparations. The conclusions which may be drawn from research work done by these two committee members are very interesting and, in some instances, startling. The committee will not, however, divulge

the details of these reports until they have all been confirmed by other workers and there can be no doubt of their entire accuracy. The other members have all reported progress, but, in the main, the work of the committee has only begun.

Respectfully submitted,

C. W. Munger, M.D., Chairman
D. L. Richardson, M.D.
H. E. Bishop
Louis H. Burlingham, M.D.
John A. Wylley
Joseph B. Howland, M.D.
Henry J. Southmayd
Walter Williams

PRESIDENT BACON: Women have been prominent in hospital work since the early days. Catholic sisters have established hospitals. Charitably inclined women have established hospitals, and we all honor Florence Nightingale for the work she did in hospitals which made her name famous. Women are superintending hospitals and nursing our sick, while women physicians and surgeons are studying the art of healing and administering to the suffering. We find women in the laboratories, in the office, in the kitchens, on the floors carrying trays, in the laundry, on their knees scrubbing, in fact, hospitals could not exist without women. The hand that rocks the cradle should minister to the needs of the people when their bodies are broken and the hospital becomes their haven for health. We have with us Mrs. Perkins B. Bass, President of the Women's Auxiliary Board, Presbyterian Hospital, Chicago, and I might say that I consider it a model women's auxiliary board. Mrs. Bass is going to talk to you at this time on Woman's Work in Hospitals.

WOMAN'S WORK IN HOSPITALS

By Mrs. Perkins B. Bass, Woman's Auxiliary Board,
Presbyterian Hospital, Chicago, Ill.

There are just as many plans of activity of woman's boards as there are boards, and there should be as many as there are hospitals. The idea of an auxiliary board is that it should be literally auxiliary, both to the board of managers and to the superintendent of the hospital. It would differ greatly with the size of a hospital, the location in a community, or in a large city and as an activity of a church or society.

In the earlier days the members of woman's boards were

supposed to go about to inspect the linen supplies, purchase cooking utensils and dishes and superintend the kitchen; possibly this activity was the greatest field for friction between hospitals and woman's boards. The superintendent of a large new community hospital now being built appealed to a recent comer, who had been active on a woman's board in another city, to get together a group of women to be the nucleus of a similar organization for his hospital.

There are so many conditions contributing to the recovery of certain cases, besides medical science and skilled nursing, that medical men are more and more recognizing the benefit of the co-operation of a board of interested women. The wise thing seems to be as one hospital has recently done, to form a woman's auxiliary for a definite piece of work, knowing that by the time this thing was accomplished, the useless women would have become weary and fallen by the way and there would be many who would have become vitally enough interested to see the other thing that was needed and put their hands to it. It is a fact that no one is interested in a hospital until it has made some call upon him, or until he has made some call upon the hospital. One knows it is there behind brick walls; the idea being that when you are obliged to enter, you do not come out of that same door, but that there is some mysterious lower region with an iron door at the back from which all emerge, who enter. Therefore, the more publicity given a hospital, the more that idea is dispelled. Science has changed the condition, so that if once the case, it is true no longer. The best material for a woman's board member is one who has been a patient, or whose family or friends have been cared for in the hospital. The next quality necessary is not a sympathy for yourself or for the individual, but for sick humanity. Then begins the effort to supply what is needed, not only to nurse them back to health, but also to re-establish them in their homes and community. Naturally, Social Service is the great factor in this work.

Social Service, which has been functioning in hospitals less than a score of years, is of benefit to the patient, the patient's family and community—it protects the hospital by investigating conditions of necessity, prevents from imposing upon charitable organizations, turning over to them, however, their part in the maintenance, arranging for the patient's family or some organization to pay a part of the expense where possible, maintaining family conditions while the patient is in the hospital, both for the peace of mind of the patient and also for the good of the family, occupying the patient's mind and hands while waiting for surgical care or during medical care, also during convales-

cence, in certain cases teaching them to do practical hand work that may provide a source of maintenance. The salaries of Social Service department workers is a problem not up to the hospital, therefore, if functioning efficiently, the woman's board may take care of the salaries, which must provide a very high type of person of varied personality to make the connection between all co-operating agencies, even to the courts in cases of non-support and desertion, which involves laws of different states. In 1922, in our department, there were 4,726 office calls and 870 visits in the home. There were 1,324 co-operations with 116 other organizations; 213 people were referred to other organizations—infant welfare stations, Central free dispensary, visiting nurse association, convalescent home for women and children, homes for convalescent men and boys, Hinsdale Fresh Air Home, Holiday Home, Lake Geneva, Camp Gray, Saugatuck, for vacations. The Chicago and Oak Park branch of the Needle Work Guild of America contributed about 275 articles of clothing for infants and young children.

This work is already vitally interlocked, the department of Occupational Therapy providing the vitally important factor of keeping the patient occupied during the tedious periods, and in cases of physical handicap, teaching the trade that is to earn the livelihood after the hospital period, also as a curative agent in exercising disabled muscles and nerves. In post-war cases as has been demonstrated, there are numberless helpers who are eager to step in and teach occupation to soldiers, but for the every day uninteresting, often trying ward patients, it must fall back on the organized woman's board to provide for this day in and day out, year in and year out service.

Training School Committee.—Backing the Training School does not mean simply "boosting," which word seems to have become King's English for the act of pushing into public notice, but the steady doing, in every way, the best thing for nursing education. There used to be a hitch somewhere between the hospital and the nursing, lest the nurses be treated some degree above their station. The higher the grade of medical man, the more intelligent a co-worker he demands, whether in his hospital or in his family, and as the nursing school demands and gets students of the calibre of university women, and gives an education where the hospital is their laboratory, the practical work shop for working out the theories of the class room, the more intelligent care will the doctors get for their patients, and the more efficient nursing can the hospital give. If this is still a mooted question in your particular hospital, take a look around, look at the demand of the school and hospital, then at the supply

of nursing material, and thirdly at the finished product. In the hospitals which I know best, the training schools are backed to the highest limit by the woman's boards. The nurses sought, are of the type of the women of the board and of their daughters, and conditions are made as nearly as possible what they would like for their daughters. An affiliated organization, the Central Council of Nursing Education, in which are grouped together the training schools which demand and give the highest standard of education, has been instrumental in getting before the public just what is offered in the best type of training school and the opportunities for service of the graduate nurse. The Y. W. C. A. have a chapter in the school for nurses where the girls may see, recognize and participate in the high ideals of young womanhood. The nurses training school committee keeps the woman's board in touch with the school activities, the president of the nurses Y. W. reported at the October meeting her experience at the summer conference at Lake Geneva, where the board sent one student nurse delegate and the school Y. W. sent two. The spiritual side of life, and affiliation and co-operation with others of the Y. W. type, is a development for all young women which we covet and cherish for our students. Recognizing the value of music for relaxation and for the recuperative value and general es prit de corps, the Florence Nightingale Chorus was formed several years ago in the Presbyterian Hospital Training School by Mrs. David W. Graham, then President of the Woman's Board, and is well known for the beautiful concerts which show the results of the weekly practice. An annual concert is given under the auspices of the Woman's Board. Last year's concert netted \$2,000, which went toward an endowment for the school. The women believe in an organization having some enterprise as an inspiration. Our school has undertaken with the Board, the raising of funds to maintain ward nurse, they have accumulated funds establishing free beds, their alumnae endowing beds for the care of graduate nurses. The ward nurse is a graduate nurse in the employ of the hospital. For the critical 48 hours following a serious operation, her exclusive services are given as a private nurse to a ward patient who cannot pay. There are scholarships provided to be used for students who are being trained as missionaries, and a loan fund is extended to certain ones who have progressed far enough in their work that we know them worthy of a bit of temporary financial assistance, which we are gratified to learn by experience is always repaid at their earliest opportunity.

At Xmas, the school held a party at Sprague Home for 72 children of the neighborhood, chosen under the direction of the

Social Service workers. They were asked to come with their faces clean and bring their invitations as admission tickets. Some came dirty and some came who had not been invited, but these minor details did not embarrass the guests or prevent them from enjoying the party. There are numerous ways in which things may be done by woman's boards for the welfare of student nurses and for their relaxation, which cannot be provided in any other way.

A comfortable endowment seems to be the logical solution of the problem of the financial dependence of the nursing school upon the hospital. Being obliged constantly to so-called begging from hospital funds makes for a critical and often irritable feeling between these two fine services, each beholding to the other for highest efficiency.

Hospital Library.—The Hospital Library is a long established agency for comfort and entertainment of patients. Groups of eight women under a volunteer chairman of the whole department go through the hospital, beginning with the wards, each Monday, distributing books, which are welcomed by rich and poor alike. The Board owns a thousand books, supplemented by a regular deposit from Chicago Public Library. This committee feeds, we might say, the Visiting Committee, reporting to them cases that seem to call for more extensive visits than can be made and arranged for on library days. The Social Service Department so reports special cases to the Visiting Committee, where visits are recommended, and other cases where a few flowers or some other attention would be a god-send.

Entertainment Committee.—Furnishes really fine program in the Chapel, Saturday afternoons, twice a month, which are largely attended, the attendance varying according to the number and type of the convalescents who are able to be wheeled to the Chapel. It is an interesting fact that on certain days the audience is quite foreign and this group enjoys the highest class of music, but cannot understand English reading. A Xmas entertainment is an especially elaborate program; the nurses chorus usher in the day with Xmas carols and a Xmas card on the breakfast tray greets each patient. A Chapel service is held every Sunday by the Chaplain and special music is furnished. Flowers are provided by a member of the board in memory of her mother, and these are distributed after the service to the patients. If anyone would like to know how this service is appreciated, he should have been with me one Sunday when I was embarrassed to be asked after the service to hand out a rose to each member of the audience. One big man "hung around" until they were all

distributed, and wheeling himself up to me said, "you have one rose left, could I have that one too."

Annual Hospital Day.—The Board assists the Superintendent in entertaining the hundreds of visitors. The Florence Nightingale Chorus provides music, there is a speaker of note, and a committee serves the refreshments to the guests after they have completed a tour of inspection of the hospital.

The Hospital Bulletin.—The Chairman of this committee is the editor of the Hospital Bulletin which is published quarterly. In January an article was published on the "Passing of the Family Doctor," an address given at the Annual Meeting of the Board by Dr. Herrick of the Staff and the Annual report of the Committees of the Board. The graduation exercises of the school of nurses occupied the October number, also an article by Mrs. D. W. Graham on Scholarship and Loan Funds for the School of Nurses, and the report of the Lake Geneva conference of Y. W. C. A. by the school delegate. Another was Occupational Therapy number, to which well known occupational therapists contributed articles.

Tag Day Committee.—Our membership in the Chicago Children's Benefit Leagues entitles our Tag Day Committee to provide 100 workers for the Annual Tag Day in Chicago. Our collection amounted this year to \$2,500. For 15 years we have been receiving the benefits of this organization, the money is expended only for children's work and at present supports a prenatal nurse in Social Service Department, a wet nurse when needed in the infants' department, part time of a kindergartener in children's department and a payment on a fourth tag day bed for children at \$5,000 each. These four Tag Day Free Beds for children are entirely outside of the Sunday School Child's Free Bed in which payments are being made on the Fourth Bed. The receipts this year were \$2,320, contributed by 68 Sunday Schools in and near Chicago. The Chairman in charge of the Child's Free Bed fund is in touch with every Sunday School in the Presbytery and provides an attractive bank at Easter time, made in the form of a child's bed, which is successful in arousing interest among the children. The children's committee has been able to contribute in many ways to the comfort and pleasure of the young patients, the private rooms and wards have been especially decorated for their pleasure, convalescent children are entertained and instructed by a combined kindergartener and occupational worker. At Xmas, Santa Claus letters were written and sent to board members personally, who responded to the appeal. Money and gifts were sent to the young woman in charge and the Service Club

of young women in Chicago contributed to the general happiness in the department. A children's "memorial fund" provides for handicapped children, the necessities and comforts which cannot be met by their families, or by the general fund available for the department.

Delicacies.—Four thousand glasses of jelly and hundreds of quarts of canned fruit, also a fund for the purchase of fresh fruit of the wards are contributed through this committee by the Presbyterian churches.

Furnishing Committee.—Provides thousands of articles of linen, also bathrobes for ward patients and many articles for comfort in the hospital not otherwise provided. One member of the committee is in charge of hospital sewing done by the various churches. About 4,000 garments were made during the past year. Soap wrappers are also collected by this committee, and the number contributed amounts to thousands, which are exchanged for flat silver through the kindness of Kirk & Company. A Committee for Thanksgiving Linen secures in the name of the Thanksgiving season an additional gift of linen amounting to \$1,500. Our sources of income are an Associate Membership list, composed of members of Presbyterian churches at a nominal fee of one dollar or more. This fund amounts to \$2,000 annually.

The Pledge Fund from the members of the board and their friends amounts to \$4,000 annually.

The Contributors Fund collected from friends entirely outside of hospital connections, who may have been patients at some time, or friends of patients, amounts to \$2,500 annually.

Tag Day nets the Children's ward \$2,500 annually.

The consensus of opinion seems to be, that a legitimate work for the women's board, is the raising of funds to endow rooms or ward beds for those unable to pay. Free beds for adults have been endowed as memorials by a board, as a whole, or by individual members.

In summing up the results of the activities of an organized board of women, we may lay emphasis on enlisting the interest of the children of the community, or organization which is backing the hospital, and of the families, who have been cared for in the hospital. The establishing of free beds for children serves a double purpose; their small gifts mount up amazingly, providing the wherewithal to care for less fortunate children and the act of endowing the bed insures for life their interest in the hospital. It is their hospital, and they become, in not so many years, the community. They learn to "carry on" the worth while work established by former members of their family or community. The point has been raised that there would be

unwarranted calls upon the beds so provided. This has been thoroughly refuted by facts. It is a lesson in practical Christianity. These reports of the departments already installed and working, seem to justify the dependence placed in them, figures showing that a half million dollars have been collected during the years the women have been organized.

The problem of a community hospital naturally differs from that of a hospital in a large city. The plan of the Evanston Hospital which is my own home hospital, seems to be especially adaptable to community conditions. The furnishing of rooms was the plan for interesting outside people in the hospital. No longer can a room be furnished from one's household goods, making an indiscriminate whole, therefore the plan seemed feasible to solicit a given amount, to furnish all rooms in a similar manner. This was done by the woman's auxiliary, formed for this definite piece of work, which was to furnish the new hospital building. About \$30,000 was raised in less than two years. The making of hospital supplies has also been done through the various clubs and Churches in Evanston, the Red Cross being the clearing house for all of this work, cutting the gauze and garments, sending it out for the making, collecting and delivering the finished garments to the hospital. An associate membership embraces a long list of interested women, who pay a nominal fee annually. Aside from the income from this source, the list forms a definite group which may be called upon for any specific need. An Executive Committee consists of officers and chairmen of committees, making a group easily called together for conference. The Training School for nurses, and its various interests, forms another point of contact between the hospital and women of Evanston. A plan is now under way to establish a department of Occupational Therapy. On account of the deep interest of the President, Mrs. Patten, in providing milk for sick babies and certain adult patients, the goat industry, under the patronage of Mr. and Mrs. James A. Patten, has made the Evanston Hospital the exponent of the feasibility of providing goat's milk for hospital use.

In a smaller community the problem would still be a different one. No hospital starts out full fledged, it may start in the smallest quarters and if the founders are honest in their endeavors to be of service, the hospital is bound to grow. One woman may be the beginning of a woman's board. She may solicit jelly or grape juice from her friends, the project is launched and the interest will increase as people give of their stores, of their time, and surely of their money.

In reply to the queries sent to many hospitals, to obtain

facts for this article, one pertinent question has been asked from two different states; as to whether the woman's board would have representation on the managing board of the hospital. In former years our Woman's Board had a representative on the Board of Managers. So perfectly were the activities of the two boards outlined, however, that each accomplished its work in perfect understanding and with support from the other. In later years the representation lapsed, but in a case where financial expense of a project was beyond the resources of the woman's board, immediate support was at hand to carry out their proposed plan. My advice to a board newly organized would be—have your departments of activity clearly defined at the start and insist on your board's strict adherence to the articles of organization.

Surely the results enumerated show the value to the hospital, of a woman's board, when organized and operated under proper conditions.

It is valuable to the managing board from a financial standpoint and also in a sympathetic understanding of their great responsibility. It is valuable to a superintendent in its expressed desire to cooperate in achieving and maintaining a high standard of excellence in every department of the hospital.

It is valuable to the school of nursing in supporting the principal in her educational standard of admission, in surrounding students with all material comforts possible, by being ready to advance money in time of financial stress and making them realize that a woman's board is not a figurehead, but a rock of defense in time of need.

These are the conditions in the board of which for four years I have had the honor of being president—the Woman's Auxiliary Board of Presbyterian Hospital of Chicago. Our aim is to be auxiliary in every sense; leading only in our own outlined plans of work. Such has been the aim ever since its organization forty years ago and during this long period the boards have worked together in perfect harmony.

Our career might easily have been different, had our relations with the superintendent of the hospital been otherwise. Never during the 40 years has there been friction, but always understanding and unity of purpose. Never has this been more true, than during the last 15 years, under the administration of the man you have honored by making him president of the American Hospital Association—Mr. Asa Bacon. We too, delight to do him honor and for this purpose a delegation of women from our Board is present at this meeting to show our appreciation of all he stands for in hospital ethics.

PRESIDENT BACON: We are fortunate in having with us today a charter member of this Board, Mrs. David W. Graham, and I want to ask Mrs. Graham to say a few words to you.

MRS. DAVID W. GRAHAM: Mr. Bacon and members of the American Hospital Association: This is entirely unexpected to me, but any man or woman who for forty years has had close affiliation, as I have had, with hospital work, surely has an opinion to express as to the value of a woman's board in connection with a hospital, whether it be a denominational or a community hospital. From a knowledge based on experience as well as observation, I can only give a warm second to the closing part of the fine address of our President, Mrs. Bass, when she emphasizes the value and the way in which a woman's board may be valuable to a hospital. First of all, there is that very definite thing of the manner, the care in organization of such a board, and then secondly, the close adherence in working to the articles of organization. I can easily see how a board organized not carefully, not properly, not realizing the importance of adhering to its articles of organization when properly laid, can be an unmitigated nuisance to a hospital. Then, of course, come the four points emphasized, the value to the Board of Managers; I am not mercenary, but I do realize fully that the financial end cannot be overestimated. The Board of Managers carry as their great responsibility, the finances. If there is not a sufficient financial backing, how can there be a hospital in which to do sympathetic work? Hence the women banded together for such a purpose, for sympathy presumably in their minds to patients, must spread that sympathy to the Board of Managers. Then they must have sympathy for the superintendent, whose responsibilities are manifold, for he, too, must carry a financial responsibility, he must see to the disbursing of the funds that have been collected. He is the buffer for all complaints—and that is another thing for a women's board to bear in mind when visiting patients. Listen with sympathy, respond with caution; remember that if there are complaints there is always the high court of appeal, the superintendent of the hospital, who must have the privilege of adjusting the complaints that come to him. Then when it comes to the school of nurses, the privileges and the obligations that rest upon a great body of women can hardly be enumerated. Not only is there the responsibility of upholding the hands of the principal who wishes to make her school of high standing, demanding excellence in admittance, excellence in service and graduating classes with pride, but this women's board must be, for the time, mothers to these young girls who come from protected homes to take this training, which has its dangerous step if not carefully

guarded. Then of course there is the responsibility for service to patients and there the women's board must be "wise as a serpent and harmless as a dove." Disaster can be brought to any hospital organization with an indiscreet member of a women's board visiting and overflowing with unwise sympathy, and so again I would emphasize that if you are organizing women's boards, plead with them that in their sympathy they also be wise and remember their responsibilities, wherever they are assumed.

MR. PLINY O. CLARK: I wish to move that it is the sense of this audience that we request the Board of Trustees of the American Hospital Association to have this address published in pamphlet form and not only the address, but the remarks of Mrs. Bass and Mrs. Graham.

The motion was adopted.

PRESIDENT BACON: I feel that I owe a great deal to Mrs. Bass, the President of the Board, to Mrs. Graham, the past President, and to Mrs. Culbertson, who has for a great many years been active in committee work, for coming here and giving us this information, which I feel is very valuable to the members of the American Hospital Association. It is my ambition that a section on women's auxiliary boards be established in this Association, where the women who are doing women's work in hospitals can come together and discuss the problems, to the benefit of the hospital.

THE AMERICAN HOSPITAL ASSOCIATION.

Twenty-fifth Annual Convention, Milwaukee, Wisconsin,
October 30, 1923, 2:30 P. M.

Dr. Alec N. Thomson in the Chair.

OUT-PATIENT SECTION.

CHAIRMAN THOMSON: The conception of the dispensary as a preventive medicine activity is growing. You will find injected into your dispensary activities in the next year, if I may venture into prophecy, more of a demand for health work in one form or another. You may find some particular urging to establish health examinations. Some of the folk who have been thinking in terms of health examinations for the last few years have decidedly expressed themselves with regard to whether or no a health examination should be paid for. Is the health examination insurance? If it is insurance, and it is insurance that is taken out by the well individual, should he not pay for his insurance? That is one phase of it. The other phase of it is: can you do a health examination—mark me, not in detection of defects, not an inspection for communicable diseases, but the examination of the individual who believes that he is 100 per cent. fit—can you do it in the atmosphere of pathology that is said to exist in the hospital and the dispensary? Should you attempt it? You are going to be asked to, without any question. There are going to be some enthusiasts for the health examination idea who are going to demand of dispensaries all over the country that they get right busy and do a 100 per cent. job on health examinations. Perhaps it can be done.

There has been another suggestion thrown out that the dispensary need only maintain a clinic for returned patients. Consider that as their health examination idea. Here is your individual who has come to your clinic with a broken arm—what is your duty? Have him coming back for the rest of his life, not only that you may see that his broken arm is O. K., but that you may look over his general physical condition and guide him along paths of health? But you get away from a definite thing, such as a broken arm, and get into the indefinite thing, such as a little cold, that may be tuberculosis later on, a little trace of sugar, or some of the other things. The dispensary's job lies there, according to one group.

I believe if we will get together during the coming year, by correspondence, and not by questionnaire, and use the Committee on Out-Patient Work of the American Hospital Association as a re-

pository for ideas, and as the place where those ideas can be separated and tabulated, that we will find ourselves moving very much more rapidly and very much more intelligently in the right direction.

A PAY CLINIC.

By George Hoyt Bigelow, M. D., Director, Cornell Clinic,
New York, N. Y.

Any dispensary may be said to have two important relations: one to the community primarily through its patients and the other to the medical profession, which includes the doctors outside the dispensary as well as those on the staff. Of course, the medical profession is numerically a small but still an important and integral part of the community, and any segregation of the two, either direct or implied, should be vigorously attacked. No such differentiation is intended. I was told that Dr. Denison would describe the very interesting and well considered way in which the general medical profession of Cleveland had co-operated in developing the pay clinic at his hospital, and that I should talk of the "inside" of the pay clinic based on my brief experiences at Cornell. When one starts to tell the "inside" story of anything, whether it be of the late war or of pay clinics, we almost invariably feel that a scandalmonger is in our midst. I shall, however, make an effort not to be too lurid.

Thus, with the two important relations to a dispensary that I have already mentioned, it seemed that the "inside" story of the pay clinic might logically deal with the patients and professional staff, while the relations with the medical profession as a whole will be handled by Dr. Denison. We may both be allowed to touch occasionally on that voiceless and long suffering entity, the community.

Let me digress for a moment to say that there is no one less worthy or competent to express opinions based on the pay clinic experiment in the Dispensary of the Cornell University Medical College than I. It has now been running as a pay clinic for some two years, and I had the honor of becoming associated with it only something over a year ago. The dean of the college, many members of the faculty, the staff of the dispensary development committee, my predecessor, Mr. Neergaard, and many of the members of our staff, bore the burden and heat of the day, and at a late hour I presume to step in and draw conclusions. But I am assured that such conduct is not unusual. Let no one conclude from the above that there are not innumerable pressing problems still to be solved at the Cornell clinic. But the enormous initial task of procuring personnel for the unexpected demands was largely met before I arrived.

How, then, does the "inside" of a pay clinic differ from any other dispensary? All clinics must have medical and certain non-

medical personnel for the purpose of treating ambulatory persons who more or less justly consider themselves sick. (Recently, with the development of health examinations, the clientele of certain clinics has been expanded to include supposedly well individuals also.) Perhaps this question of what differentiates a pay clinic from any other can best be approached from the angle of what led to the feeling that there was a demand for anything like what the pay clinic has developed into.

Dr. Richard Cabot is commonly accredited with initiating the now familiar statement that the poor and the rich receive the best medical service, though I should not be surprised to hear that some Egyptologist had discovered some such inscription on some of that hideously uncomfortable furniture recently exhumed in the Valley of the Kings. Not long since I heard the above statement vigorously questioned in regard to the quality of medical service commonly rendered in dispensaries to the poor. Because of the crowding and the irregular attendance of many of the medical staff, with the resulting hasty and superficial work, it was felt that much of the service to this group in the community was indifferent or even worse. The statement may also be questioned as regards the general quality of the medical service received by the well-to-do. All of you present know how to break through the rather mystical circle which divides the medical goats and sheep. But think of the large majority of well-to-do laymen who are so unfortunate as not to be on terms of sufficient intimacy with any doctor, nurse, medical social worker, or other medically sophisticated individual to get an honest opinion as to the relative value of the wares that different doctors offer for sale. These persons must be guided by lay gossip or the telephone directory. Mrs. Brown was "cured" by Dr. X of something that she would have got well of anyway, and is boundless in her praise. Mrs. Jones was "killed" by Dr. Y, when she had something that even Providence was powerless to cure, and relatives and friends are boundless in their condemnation. And so it goes. Or, meeting socially, a potential patient is attracted or repelled by the color of the tie, the cleanliness of the fingernails or the most superficial mannerisms of the doctor. A young boy, asking my advice in regard to the medical profession, said that he thought of going into it because all the doctors he knew drove such expensive cars. Fortunately—or unfortunately—he has since entered the army. Probably a negligible number of these well-to-do persons employ the relatively safer method of obtaining the names of staff members from a reputable hospital.

However, it can perhaps more accurately be said that the rich and the poor have potentially the best medical service if they only know where to get it. The pay clinic is an effort to put the same potential service within the reach of persons with restricted incomes.

With an increase in the number of pay clinics, and even in our relatively small clinic at present, it is a regrettable fact that in not a few cases the high quality of service, which we must render if there is to be an excuse for our existence, is still potential rather than actual. When I first arrived at the clinic one of the members of the faculty told me that while the reduction or elimination of the monthly deficit, the limits of economic exclusion, etc., were all very essential parts of the experiment, still the overwhelmingly important and difficult task was the retaining of the quality of the medical service at its present level, and much more, raising it; that with any new venture the original enthusiasm wanes with time and, without enthusiasm among the personnel, what hope has any institution?

I will take it for granted that I need not use your time in discussing the oft heard statement that plenty of doctors can and will, without giving charity, handle the same group of cases in their own offices for what they pay at the clinic. Common colds, yes. But we have found that it is the obscure or "problem" cases that make up the vast majority of the clientele of our pay clinic, the type of case that takes time and more or less elaborate equipment to diagnose and often to treat. We all know of individual cases so handled by every doctor of our acquaintance, but not at cost, as present costs go. But such individual charity does not care for the 110,000 visits at our clinic the first year; nor do these people want, nor should they be forced to submit to, charity. It has been seriously stated that, with the present trend in the science of medicine, adequate service soon can not be given except to the rich without an element of charity. The pay clinic, if it succeeds, will disprove this.

If it were not true that the group to which the pay clinic aims to cater neither desired nor needed charity, the existing free or semi-free dispensaries might open their doors to a somewhat higher economic group than they at present consciously admit, and the problem might seem to be solved, if (and it is an important "if") these persons would be willing to go. We all know of the woman with the fur coat even in the free clinic. There seems to be something particularly heinous about a woman with a fur coat in a dispensary. I am always glad of the advent of summer, for although the woman with the fur choker weathers any temperature, the woman with the fur coat disappears. But, like any other conspicuous individual, she gives a false impression of numbers. I remember one day at the clinic hearing from five different sources of a woman with a "real" seal coat. Three of these reports I had time to follow through and they were all the same woman, who, in spite of her coat, not *because* of it, was eminently eligible.

Granted, then, that these persons of restricted means should and can pay for what they get, there are two questions that might be

asked: How much should they pay? And more important: What should be the limits of economic exclusion?

The obvious answer to the first of these questions is that they should pay the actual cost of the service rendered. Like many answers to similar questions, this sounds simpler than it really is. In this connection it is of interest to know that, according to the New York State Board of Charities, it is illegal to have charges based upon cost of service. It is obvious that, in order to charge patients even roughly what our service costs, the cost of the service must be known. This necessitates at least a relatively exact cost system. I was much interested in a recent criticism of cost accounting in hospitals and dispensaries. The critic said that probably no other institutions in the country so exploited their staff, unless it was the churches, and that with the introduction of a cost system the degree of exploitation would become apparent and the cost would inevitably rise. Of course, such an argument was used by the cotton growers of the South before the emancipation. And who shall say that to a certain extent the inefficiencies of our dispensaries are not proportional to the exploitation practiced by them?

It was early apparent to us at Cornell that it would not be feasible to vary the charges to the patients directly according to the cost of the service rendered. There would be too wide a variation and too great a multiplicity. For instance, the per visit cost varied from about 75 cents in the nose and throat department to around \$5.00 in psychiatry. The largest element of cost in these visits is the doctors' time, so that the cost is higher in general in those departments where general physical examinations are given, particularly such as general medicine, pediatrics and nerve. A clinic session is of two and one-half hours and the doctors are paid from \$2 to \$3 an hour. In the general medical department this is divided into ten units of fifteen minutes each. Each new patient is allowed three units of the doctor's time and each old patient one unit. Appointments are given in advance and when the quota of a given session is complete no more patients are admitted. Thus the cost of the doctor's time in this department is 50 cents or over for an old visit, and for a new patient from \$1.50 to \$2.00. The proportion of new to old visits in this department has been quite surprisingly high (one to three), in part because of the type of case that we have attracted. It is true throughout all the departments that the new visit is from two to three or even more times as expensive to the clinic as the old visits.

Then, too, the question of how to base the charges in the service departments such as X-ray, pharmacy, laboratory, etc., is complex. I was surprised to find that certain dispensaries in New York City which charge a purely nominal admission fee were claiming to meet expenses on their receipts from X-ray films and drugs. This is cer-

tainly fulfilling the spirit as well as the letter of the State Board of Charities' ruling that there shall be no relation between the charge made and the cost of the service rendered. Again, our present charge for salvarsan is \$3.50, \$1.50 for the regular admission fee, and \$2.00 for the drug and its administration. I am told of a charitable institution in the same city which charges 10 cents admission and \$7.00 for the salvarsan. This is of course an extreme instance, but shows clearly the unsatisfactory state of special fees in dispensaries.

Not long ago I was talking with the superintendent of one of New York's large charitable hospitals which conducts a dispensary. The question had been asked as to what was the basis on which dispensary charges, both for admission and special fees, were made. He said that roughly 25% of his patients paid the full fee, 25% paid no fee and 50% paid some part of it. His ideal was that the maximum fee should be about twice the actual cost of the service so that those who paid the full fee should carry not only themselves but the equal number who paid nothing, whereas the 50% paying only part of the fee would approximately carry themselves. Thus his ideal of having his dispensary just pay for itself would be realized.

We had been in the habit of referring patients who could not afford our fees to his dispensary. But, since our aim was to have our charge cover the cost of service to one individual rather than to two, I said that in the future I thought we would be justified in also sending patients to him whom we considered more than able to pay our fees. This was of course an exaggeration, since his costs were so much less than ours, due largely to the fact that he paid only a negligible number of his doctors, though this number is steadily increasing. This again shows what a nebulous state surrounds this whole question, in theory as well as in fact.

The rate of compensation to the doctors has a very direct bearing on the cost of the service rendered. What should this be? Before the opening of the clinic it had been decided to pay from \$2.00 to \$3.00 an hour. On an eight hour day this represents from \$5,000 to \$7,000 a year. If we take into consideration the cost of private professional overhead in such a city as New York, a net income of \$5,000 to \$7,000 would mean a gross income of \$10,000 or more. This certainly compares favorably with any report that I have ever seen on average medical incomes. But it is true that our doctors are all part time workers and that part time work is in general paid for at a higher per hour rate than full time work. What, then, can we compare our scale of pay with? Industries and insurance companies use both full and part time medical service. From \$3,500 to \$6,000 is often paid for full time and from \$1,000 a year up for part time when one or more hours a week are spent. These positions are generally filled by men not long out of the hospitals. The less numerous

positions filled by men of greater experience and having more responsibility carry a considerably higher rate of pay. Our rate of pay then compares not unfavorably with some of the more moderate rates in industrial and insurance work for younger medical men. But what have we to offer besides the financial remuneration? Many doctors in practice are anxious to have dispensary association, who would not be interested in industrial or insurance work. We can offer them reasonable clinic facilities, with relatively adequate non-medical support. Then there is the prestige of association with a teaching institution, and the stimulus which comes from intercourse with other members of such an institution. At Cornell we have no hospital of which the clinic is a part, and so have no hospital privileges to offer our staff. Such hospital association would add to the attractiveness of our staff positions. I should be sorry to see the rate of pay sufficiently high to be an incentive in itself to work at our clinic. But I feel that some remuneration for dispensary service is a step towards solving the very unsatisfactory state of present medical economics. Just what the rate of this remuneration should be has certainly not been finally answered.

At Cornell we have no social service department, but in each clinic there is a socially trained person who is in charge of the handling of the patients under the doctor's direction. As we are studying the duties of these persons, we are trying more and more to delegate routine work to less highly paid clerical workers. There is always the danger that an enthusiastic, competent social worker will be lost under a mass of routine. On the other hand, the logical and effective initial contact between patient and social worker is in the presence of the doctor. The question of how much extramural social and nursing service a pay clinic should do has a very direct bearing on the total cost of service, and when the patient is asked to carry the cost of such service it has quite a different aspect than when the cost is met by money from a source entirely outside of the patient. We have cut such extramural service to an absolute minimum, and have gone on the theory that the better the contact in the clinic the less need there would be for work outside the clinic.

Another mooted point has to do with whether or not certain costs, which may be included under the term of general building overhead, should or should not be charged to the patient. These include such matters as rent, fire insurance, interest on bonds, etc. With us, this item amounts to some 30 cents a visit and has been contributed by the medical college. In most institutions where they have available space and are considering the opening of such clinics, I think they intend to contribute this item also, asking the patients to meet only the additional expenses incident to the running of the clinic. The first year, with an admission charge of \$1.00 plus special

fees for special procedures, the average cost to the patient per visit was about \$1.50, while the cost of the clinic was about \$2.00. If the items of general building overhead had been included, the clinic cost per visit would have been some \$2.30 and the per visit deficit 80 instead of 50 cents.

A matter of much interest to us is, how much the cost of the service is increased by the fact that the clinic is used for teaching. That the patients gain, by improved quality of service resulting from the association with a teaching institution, I feel ought to be beyond question. Such an institution attracts the type of men which is the best assurance of sustained quality. But teaching, and the concomitant research, are time consuming and therefore expensive. The medical college has contributed annually a considerable sum of money, which more than covers the additional expense incident to teaching. But in estimating the actual cost of the service received by the patients, as a basis for fixing charges, as well as for the benefit of other non-teaching institutions which may consider inaugurating such a clinic, it is important for us to distinguish between the cost of the service and the cost of teaching. This is difficult. If we were not a teaching institution, would there be so many subdivisions of the general medical department in which the cost of service is relatively high? These are gastro-enterology, arthritis, cardiac, diabetes, asthma and hay fever, endocrinology, etc., etc. How much is the quality of service increased by such specialization? How many of these cases could be treated in the general medical department without seriously impairing quality? The spirit of research largely prompts such subdivisions and increases their cost; but such increase should not be borne by the patient, since it is future rather than present patients that will benefit most from the research.

I would like to mention here one of the questions that gave perhaps the most concern to the faculty of the medical college before the pay clinic was opened—that was, whether or not the somewhat higher economic group would be willing to be used as teaching material. The answer is that the economic difference between our clientele and that of the free dispensary makes no difference in this matter. We aim to have the social worker talk that matter over beforehand with all patients who are to be shown to students. We all know of the woman who rushes in breathless to ask if she is late for Dr. So-and-So's clinic. When asked why, she explains proudly that only two other people in the world have ever had the disease that she is suffering from. That attitude does not depend on economic status but rather on a tactful presentation beforehand—and let me emphasize the "beforehand." The occasional dissatisfaction has usually occurred on crowded, hurried days, when no time was allowed for explanation, or when the patients were kept on exhibition for a period out of all

reason. There is a ruling to the effect that any patient refusing to be used for teaching shall be excluded from further attendance at the clinic. In the past year we have, unfortunately, enforced that ruling once. It was fairly soon after I arrived, and I feel now that it need never be enforced again. Tact and human kindness are needed in the pay as well as in the free clinic.

These, then, are some of the matters we have in mind in trying to estimate fairly the cost of the service rendered. What are some of the considerations on which to base an economic classification of persons eligible for such service? We have been criticised in the daily press for excluding anyone who can meet the first admission fee. We are told that the income of our patients is no more our business than it is the business of the cigar store and the department store. What is described as the "financial inquisition," to which all applicants must submit, is said to be undemocratic, Prussianistic and un-American. When we rather tremulously ask whether the private practitioner has no rights which must be protected, we are asked in return whether the Plaza Hotel should not ask for protection from its competitors who offer rooms for a dollar. And I wonder about it all. But medicine is primarily an art, and secondarily a science, and the arts are not entirely comparable to the industries.

A very immediate reason with us for exclusion is the question of space. We now handle from two to three times as many patients as the old clinic handled in the same space, and there is no prospect of expansion. With limited capacity, then, and during the experimental period, we certainly are justified in selecting material which seems to give promise of answering the question that gave rise to the experiment. We would be dissipating the funds at our disposal if we but duplicated the clientele of the semi-free dispensary, on the one hand, and would be putting no additional potential service within reach of those well able to pay the private fees of competent physicians.

We think there are, however, many advantages in having a pay clinic associated with an institution that conducts also a free clinic, preferably at different hours. Applicants financially below the pay clinic level can be sent to it and the very unpleasant criticism (to which there is a strong emotional response) of turning away the poor, is avoided. This we can not do at Cornell, because of space limitations.

As a rational basis for decision as to the eligibility of an applicant we should know, first, the cost of the service required, and second, his ability to meet such costs. I have discussed some matters which must be considered in estimating the general cost of service. But when a patient comes with a pain in the ear or stomach, we would like to know what the cost for diagnosis and probable treatment at the clinic will be, and—what is more important—what the

cost of similar adequate service in the private office would be. Certainly the differential diagnosis between abdominal cancer and gastric neurosis costs much more than that between acne and eczema. Again, the treatment of chronic otitis media or syphilis costs more than that of sliver in the finger. We are now conducting studies, with the aid of the Committee on Dispensary Development, as to the approximate costs of service both within and without the clinic for various groups of diagnoses. To make these of most value at the admission desk, we should carry these costs through to various complaints. If, for instance, we knew that adequate service in the private office for a pain in the stomach would be from \$50 to \$500, and for a pain in the finger from \$5 to \$50, what an aid that would be to intelligent admission.

The ability of the applicant to pay depends of course on a variety of factors, such as the income, the number in the family, the number that are minors, the number of wage earners, the standard of living, the local cost of living, unemployment or other financial emergency, the cost of previous medical treatment, etc., etc. Before the clinic opened the Cornell authorities and the Committee on Dispensary Development, in consultation with Professors Ogborn and Chaddock of Columbia University, drew up an economic classification based on the then available data. This admits single individuals with annual incomes of \$1,100 to \$1,800, up to a family of five earning \$3,000; \$200 is allowed for each additional member. This classification has been applied individually in each case.

Recently Prof. Chaddock and Mr. Davis made a study of a thousand consecutive admissions, which was reported in the *Boston Medical and Surgical Journal*. They were conservative in drawing conclusions, but it was quite evident, when comparing the economic status of these patients with that of the community as a whole, that there was more apparent selection on the part of the clinic among the single individuals (i. e., having no dependents) than among the members of larger family groups. This showed graphically a need that has been felt for some time by our registrars. In a unit of five, with a given income, is there more cash available in proportion to the number of members that are minors? Probably. But what is the proportion? Again, it is said that in such a unit the financial stability increases with the number of wage earners, but the available resources at a given time decrease. If so, what is the proportion? What we need urgently is reliable figures on sickness budgets, not for the community as a whole (except for the applicants to our health clinic) but for a group of persons who are sick in a given year, since persons coming to the clinic in the vast majority of instances do so because they consider themselves sick, whereas in the community at large a certain proportion are not sufficiently ill in a given

year to seek medical aid. To show how wide a diversity of opinion there may be in these matters, certain critics of the clinic say that a family of five in New York City, earning more than \$1,700 a year, is able to obtain necessary and adequate medical service at private rates, and therefore its members are not proper subjects for admission to a pay clinic. Whereas, as I have said, our present schedule admits single individuals up to \$1,800.

We have asked the doctors and other members of our staff to help on these difficult economic questions. As a result many interesting and knotty concrete cases are brought to our attention. A woman comes to have her eyes re-tested for glasses. She has \$12.00 glasses hanging on her nose. One of our eye men contends that she could have obtained quite satisfactory glasses for \$7.00, leaving \$5.00 for an adequate examination in a private office. She earns \$27.00 a week, with two dependents. A plumber is admitted, with an obscure condition. A member of the staff later elicits that during the last three years he has earned as much as \$12.00 or even \$16.00 a day. (Of course that revives the universal hatred of plumbers, which reached its height during the war.) He is out of work, has no dependents, nor savings. Should cheap glasses and an ability to save be pre-requisites to admission? Am I sentimental, or is it true that such rules of exclusion are too simple to be equitable?

With the help of the Committee on Dispensary Development, we are making studies as we go. We are also looking forward hopefully for advice and aid from the Department of Economics at Cornell University. Such studies as the Metropolitan Life Insurance Company is making of sickness budgets among its personnel give promise of material assistance. In the meantime we are feeling our way, making individual application of such classifications as we at present have. And there is a wholesome disagreement with many of these in our midst. But, as Dean Miles said, if we had waited till all such questions could be answered we would never have started at all. As in any experiment, we are collecting data on which to base modifications in the technique of the experiment.

If you will bear with me, there are one or two other matters that I should like to mention. We find that 70% of the admissions have been for six months or more to private physicians for the same complaint which brings them to us. We repeat this, with a look of horror and a feeling of conscious virtue, to our medical critics. We feel ourselves a breakwater for this class of patients, between the private doctor and the quack. Then someone jolts us out of our complacency by asking what has happened to this same 70% after six months with us. Are we but an oasis on the road to the chiropractor? This we can not at present answer. We know our one-visit index. We have a surprisingly creditable figure for the number of cases closed at the

direction of the physician, 50% in the general medical department during the first year, when the pressure of work on a newly organized staff was enormous. But these do not answer the question. To answer it we must be able to define adequate—not ideal—medical service. It is certainly more than accurate diagnosis. The criticism of much of the work done in our best institutions is that as soon as the medical conundrum is solved interest wanes. It is more than increasing sugar tolerance or decreasing amino acids. Satisfaction on the part of the patient, which is the basis of confidence and co-operation, is an important factor. Satisfied patients alone are, of course, no index of the quality of service. Such a criterion would vindicate quackery. On the other hand, we have too long borne with the Prussianistic attitude of some of our medical brethren that if the patient does not like what he gets, let him go to perdition, for the doctor can do no wrong. Do not mistake me as meaning that our medical staff should not be protected to the limit from being harassed by the medical shoppers and chronic physically self-conscious men and women who look for miracles. I would give much to know what the satisfaction index of a clinic doing reasonably honest, thorough work should be. It would vary probably with age, sex, nationality, chronicity, etc., etc., and no one can tell me.

Again, the degree of ultimate disability, and the time taken in removing disability, should enter into an estimate of adequate service. If, for instance, we knew that with a certain group of arthritics a 50% disability was a reasonably good result, a 25% disability on an unselected group of reasonable size would mean one thing, and a 75% would mean another. But we have no such figures for arthritis, and if we had they would give a false sense of accuracy. Acute conditions and surgical conditions are easier to score thus, and of course they have been so scored in the enlightening "end result" studies. But most of the work of the average clinic is neither acute nor surgical, and if we are to give an excuse for our existence we must make some estimate of our work based on such considerations. Unless we are giving a more adequate service to our patients than they can receive at the same cost in private offices, let us waste no time in closing our doors.

Fortunately, the clinic chief in our general medical department is deeply interested in just this question. The faculty committee has appointed him to conduct such a study and he has interested certain members of his staff in the matter. They are at present working on a method of making such an estimate. What could be nearer the heart of things vital in a dispensary?

Probably the greatest single factor at Cornell that has gone toward the improving of our service is the appointment system, with the result of limiting the capacity of the clinic. It makes for certain

dissatisfaction among excluded patients on a given day, but they profit from the practice later. We are all too familiar with the conventional method. The doors are opened early, for an hour or an hour and a half. The crowds pour in. The doors are closed. Then the doctors begin to arrive. The slaughter begins and continues until the benches are cleared. I remember well, as a house officer in the dispensary. Twelve, twelve-thirty, would arrive and the visiting men would begin to disappear through back doors. The benches were still crowded. One must get lunch and be in the house by two. Inevitably one's thought turned to the pressing problem of clearing the benches as rapidly and with as high a degree of satisfaction to the occupants as possible. By limiting the intake of patients, that sense of pressure is removed. Do not think that our appointment system works with anything like perfection. Such a system depends upon such factors as prompt attendance of the doctor and patient, a fairly constant proportion between new and old cases, expeditious handling of histories, a relative stable quotient of broken appointments, etc., all of which are, unfortunately, variables. It has been said that we have a distribution rather than an appointment system. But when some 75% of our cases come on the day designated, besides approximating the hour specified, we have gone a considerable way in staggering under our load. But even so, it is estimated that an amount of time, aggregating years, is spent by patients waiting on our benches each month.

Our consultation clinic (to which about 2,000 doctors have sent patients) and our health clinic, raise unanswered and interesting questions. Many of these have to do with medical contacts outside the clinic, and I shall expect to have them handled and clarified by Dr. Denison. The diversity of the so-called medical ethical problems that arise in the pay clinic are myriad. Let me, however, say in closing that the amount of data bearing on questions that are of the most vital and immediate interest to the community as a whole, and especially to that small part of it, the medical profession, that is being gathered from such an experiment as that at Cornell would seem to be an overwhelmingly sufficient reason for the conduct of the experiment. Another reason is to actually give the persons that come to us decent medical service without charity.

MEDICAL RELATIONSHIPS IN A DISPENSARY.

By A. B. Denison, M. D., Director, Lakeside Hospital, Cleveland, O.

The very subject assignment for this paper, namely, "Medical Relationships in a Dispensary," connotes, to anyone familiar with dispensary work, all sorts of difficulty and trouble. It certainly would be a welcome message to all of us if someone of transcendent vision and omniscient mind could evolve some definite plan that would

admit of general application to all dispensaries, everywhere and under all conditions. Unfortunately, however, for various reasons, such a welcome message has not been forthcoming and yet all the problems of medical relationships continue to exist. In fact they are not only continuing their existence but are growing more and more complicated, paralleling in this growth the widening of the conception of the place a dispensary should occupy in a community.

In presenting this paper on this subject, we have no idea of claiming title to the role of prophet in dispensary work. The problems of dispensaries are so very individual and peculiar to each dispensary that it would be sheer folly to attempt to propose a general solution for dispensary problems of medical relationships. Each dispensary must approach its problem in the light of local conditions and with a clear conception of the materials with which it must work. To attempt to fit to any community a procedure devised by another community would be courting failure with nothing to be gained.

Therefore, may it be clearly understood at the start that this paper is not attempting to set standards or dictate policy to anyone. It is merely recounting some of our experiences in Cleveland and pointing out some general principles that we feel can be emphasized in our work. While it is true that we do not at all advocate a rigid, detailed application of our ideas in any other community, is it not true that since it has worked with us in Cleveland, any principles on which our work is based are worthy of consideration by anyone interested in dispensaries? The situation here in Cleveland is not essentially unique, with the possible exception that the Cleveland Academy of Medicine is one of the outstanding medical groups in the country in its clear thinking progressiveness and in its recognition of its duties and obligations to the community. It is a pleasure to admit that without the thoughtful and whole-hearted co-operation of the Academy, anything we have been able to do would have been doomed to failure from the very start. This is so true that this subject can not be discussed as the activity of Lakeside at all, but must be considered the joint activity of the Academy and the hospital. Therefore, in presenting this paper, I feel that I do so not as the representative of Lakeside Hospital alone, but as the representative of the Cleveland Academy of Medicine as well. The Academy has proven repeatedly that it is just as vitally interested in the question of dispensaries as any hospital group can be. And on brief reflection, is it at all surprising that the organized medical profession does have a keen interest in dispensaries and their development? It must be kept in mind that essentially both the medical profession and the hospitals are interested in the same things; in different phases, it is true, but in the essentials their interests are identical. That common interest is, of course, the alleviation of human suffering directly through ministra-

tion to the sick and indirectly through the education and training of doctors and nurses and through the education of the patients themselves in hygiene and public health. The fact that doctors and hospitals do the things they do is perfectly good evidence to prove the truth of this statement.

Granting, then, the truth of this statement that there is a basic unity of purpose common to the medical group and the hospital, do we not naturally turn next to a consideration of the factors that influence professional relationships?

That is the practical working out of this relationship in the light of this basic common interest.

The point of view assumed by the hospital in its approach to the medical group has a perfectly tremendous influence in the subsequent working out of dispensary plans. In simple justice to each other, the medical profession and the hospital must each attribute to the other the same high principle and purity of motive that actuates their own actions. Both groups are comprised of individuals and consequently each group has in the main the same reactions as have individuals. In our personal relationships we all know that the reaction we get in our approach to an individual is very largely influenced by our own attitude and by what we expect that reaction to be. What justification have we then for assuming that the same rules do not hold in the approach of one group to another? Is it not perfectly logical to meet an antagonistic reception when, as is sometimes done, a hospital group approaches the medical group with the expectation of meeting a rebuff or a refusal to play the game or with the thinly veiled threat that if the cooperation is not exactly along the lines desired by the hospital, a resort to force would be employed to secure at least an outward acceptance of the place proposed? How can any dispensary be securely set up when the organized medical group in the community—one of the groups most vitally interested from every angle—does not have the opportunity of contributing its very valuable and essential part to the dispensary organization? To start a dispensary without this factor of aid from the profession is to assume a handicap from the very beginning. And, to repeat a previous statement, the degree of cooperation secured from the medical profession is dependent very largely upon the attitude of the hospital in approaching the medical group. Particularly is this true since productive cooperation is based upon mutual confidence and understanding.

From this statement it is seen that I am assuming that the approach should be made by the hospital and not by the profession. The medical profession, being comparatively loosely organized of independent practitioners, cannot take the initiative in the cooperative organization of a dispensary as readily as the rather closely organized and compact hospital should be able to do. This fact is

simply due to the type of organization and reflects no discredit to the medical group. This fact, however, has probably been the subject of much misinterpretation by both the hospital and the profession. It does not in any way relieve the profession of its responsibility of meeting advances on the part of the hospital in any way other than with a desire to play the game for the benefit of the patient and the community. At the same time, this obligation of initiation that rests on the hospital does not in the slightest justify any feeling that the hospital is self-sufficient and independent in organizing a dispensary, particularly any sort of a pay clinic, and that the medical profession is an incidental that follows in due course. The unity of basic interest is such a fundamentally important factor that it cannot be ignored and makes the idea of self-sufficiency and independence of either group one that is not consistent with modern medical and dispensary practice.

I have not a doubt that the majority of the people here agree, in principle at least, with these general statements as to the basic underlying principles and I do realize that while these principles may be sound and accepted by everyone, yet the final proof of the truth of any idea is its practical working out.

Our experience in Cleveland in the organization of our night clinic, a pay clinic, and all subsequent intercourse with the Cleveland Academy of Medicine, have proven to the satisfaction of all of us that these principles are not a visionary ideal, but are a practical working basis. It has been our aim to observe rigidly these principles and the reaction has been strictly according to rule.

Some two and a half years ago the trustees of Lakeside Hospital felt that our night pay clinic was not on a basis consistent with the place the hospital should occupy in the community. It had been for some time the subject of a very great deal of criticism by the community in general and the medical profession in particular, and justly so. The trustees, therefore, sent to the Medical Academy a formal communication requesting that the Academy appoint a committee to work with a corresponding committee from our trustees and our staff in outlining a basis for the reorganization of the night clinic.

The Academy promptly appointed such a committee and our work began. To say that our task was carried on without discussion or difficulties would make a fine story but it would not have the merit of truth. There was much discussion, some fairly acrimonious, but throughout it all and in every meeting ran the leaven of open-mindedness and fairness and a desire to arrive at a conclusion based on facts. The report of the joint committee was condensed into the following, which went before the council of the Academy and finally was voted on in open meeting, at all times sponsored by the Academy committee. The report is as follows:

"1. No evidence is found to indicate that night pay clinics are needed at Lakeside Dispensary except in venereal diseases. It is, therefore, recommended that the Lakeside night pay clinic be confined to venereal diseases, to be organized only for the treatment of venereal diseases in the acute stage.

2. It is recommended that the cost per visit at the night pay clinics, as evidenced by the expense of operation for the preceding three months, be made a basis for arriving at the minimum fee to be charged all cases. It is further recommended that patients be charged a fee for each visit, according to a financial rating made by the social service department and that fees charged range from the minimum, as above stated, to a maximum equaling approximately what the patient would pay if he went to a private physician for similar treatment. In explanation of these recommendations, it was contemplated that fee schedules should extend for three months and at the close of each three months' period be corrected in accordance with the cost figures of the three months preceding. It was further understood that cost figures should include legitimate operating expenses, including overhead directly chargeable to the night pay clinic. With reference to the financial rating by the social service department to determine fees charged patients, the committee believes that the chance of error in such cases would probably be no greater than in a physician's office. It was also understood that financial rating of patients will be checked up by reference to the clearing house of the Associated Charities in doubtful cases. The committee feels that by this method errors in judgment as to financial rating on the part of persons making such ratings will be reduced to a minimum, and that in view of the public health benefit by treatment of acute cases of venereal diseases no patient applying for treatment should be excluded, provided he complies with the financial requirements as herein recommended.

3. Fees for special treatment: It is further recommended that charges for special treatment or examination, such as dark-field examination, administration of salversan, mercury, etc., should also be made upon the basis of cost.

4. It is also recommended that patients who by reason of their financial conditions ordinarily should be compelled to visit only the night pay clinic, but are unable to attend this clinic on account of work or some other unavoidable circumstance, be referred to the day clinic as special cases and there given treatment, but only under the fee schedule governing the night pay clinic, as above stated, and that the reverse of this should also be permitted as regards cases afflicted with venereal disease in an acute state who are unable to attend the day clinic when referred by the social service department. In the latter case the fee schedule of the day clinic should apply."

The Lakeside night pay clinic has been running on the basis of this outline ever since its adoption and we feel is serving a real community need. Its service has been not only in the furnishing of medical care, but the fact that the basis for its reorganization is the result of joint action of the Academy and the hospital has served to point out that problems previously considered to be the province of either the hospital or the profession were susceptible of joint action and that the results were immeasurably more satisfactory to all concerned. I feel that the remarkable interest manifested by the Academy in hospital and dispensary affairs is due in small part at least to the example set in the working out of our night clinic plan. Credit is due the hospital, not for stimulating this interest, but only in offering to the profession a chance to demonstrate that the high ideals they maintain in practice could be worked out in an active dispensary. The hospital deserves but little credit for this since it should be but part of their job. Neither does the profession come in for undue praise for it is but part of their duty as they see it. But, if we have done anything in Cleveland worth while by getting together on a rational basis of cooperation, as we should, is it not worthy of consideration by other groups?

The spirit of cooperation has not flagged since the first enthusiasm. The Academy has a never failing interest in community hospital and dispensary affairs. It has representation on the Dispensary Committee of the Cleveland Hospital Council, a committee composed of representatives of hospitals, health department, etc.—a very active committee. The Academy, through its own Committee on Hospitals and Dispensaries, holds itself in readiness to lend its aid in considering the problems of any group, and again this is not a visionary function but the committee actually works. The results have proven that its efforts are not futile. For example, this committee was medical sponsor for a successful Rotary Club clinic for crippled children in Cuyahoga County—a clinic so successful that it bids fair to be adopted as the standard procedure for the state.

The Professional Relations Committee of the Academy also sponsored a meeting of hospital executives to consider a standardized code of information to be given out to lawyers, newspapers, etc. This code consequently is in accord with medical ethics, and, contrary to the ideas of some, greatly simplifies the problem of the executive in handling this question.

Please do not consider that I have departed completely from my subject and have gone far afield in eulogy of the Cleveland Academy. I have recounted these things merely as showing some of the results that we can expect when the medical profession is merely given the opportunity of a fair minded cooperation. The medical relationships in a dispensary are secondary to and follow the insuring of mutual

confidence and esteem and once these are established the lid is off and the sky is the limit to the achievements possible to the cooperating profession and hospitals.

MR. RANSOM: Mr. Chairman and members of the Out-Patient Section: I hope that all of you have taken the opportunity to read the report of the Out-Patient Committee, which was presented this morning and appears in the printed proceedings. This Committee has done a unique thing this year, a new thing in the annals of Committee work, in presenting to the Association some standards for Out-Patient Service. These standards were the result of work done by the Associated Out-Patient Clinics of New York, but gone over very carefully by this Committee and modified somewhat, after consultation with other dispensary people in the country. Those of us who are actually engaged in dispensary work know that our particular job is fraught with a tremendous number of problems. There are many of those that Dr. Bigelow mentioned that are not peculiar to pay clinics. They apply almost as much to the free, or so-called free, dispensary. There is a question of who is eligible for service, and on what basis you are going to establish fees, if you have any. All of these questions have to be answered and many more by each individual Out-Patient Department. The Association, through this Committee, if the Committee can go on with the work that it has so admirably done this year, can help answer those questions for all of us. It is true that conditions are not alike in all cities, and in all institutions in the same city, but there is a large common factor in the problems which we are facing in working out a type of medical service in the community that will meet the needs of the patients who are eligible for it, and which will make for harmonious relationship with the medical profession both within and without the dispensary.

There are so many common factors in those problems that we believe that the American Hospital Association can well afford to give consideration to them and to spend some money, if you please, in helping find the solution which might apply, with modifications, to any particular institution.

One of the significant questions, to my mind, that has been raised today is, what constitutes adequate medical service in an Out-Patient institution? There is a twin question with that—how do you know when you are getting it? Those of us who are engaged in dispensary work know that the statement that Dr. Bigelow made, that the poor and the rich have the best medical service, is subject to a certain amount of revision in some instances. Those of us who know how dispensaries are run, know that the service that our patients get isn't always the best, in fact it is far from the best. I think what is usually meant by that statement is that there is available for the dispensary patient good medical service; there are good doctors

working in dispensaries, there is an organization with the necessary facilities to make possible good medical service, but that is a far different thing from saying that good service is always obtained. But how are we going to know just what type of service the physician in the dispensary is rendering? How is the superintendent of a dispensary going to be able to judge of the quality of the medical service that is rendered in his institution? Records are one way, of course, but the record doesn't tell all the story. Something could be done here for the benefit of all of us. I think the Committee might well give serious attention to answering this question: By what efficiency tests, or by what other methods, may we arrive at some conclusion with reference to the quality of the service our patients are getting?

Dr. Denison brings up a question which many of us have thought about a great deal—he answered it in a large measure—the question of having satisfactory relationships with the local profession. I think he convinced me of this, that it is not quite fair to say that the local medical profession isn't with you until you find out whether they are or not. I think too often we have jumped to the conclusion that the organized profession, the County Medical Society, is an organization primarily interested in protecting itself and its members and that it wouldn't even give an ear, to say nothing of an open mind, to anything that you might put up. I think the Cleveland experience goes to show that in one city, at least, when the local medical society was approached for a discussion of the problems that concerned it, and concerned the hospitals and dispensaries, that there was a very good response. I am not sure that in all cities one would get just that response, but I don't think we have any right to say that the medical profession, as an organization, is going to put anything in the way of good medical service to the poor, until we have found out whether that is the case or not.

MR. WING: I feel that it is a very good thing that these problems, which have been stated by Dr. Bigelow and Dr. Denison, are brought before us. They bring out the fact that in out-patient work we are really facing a period in which more attention will be given to the whole question of job analysis. There are many points of interest in the question of cost which I would like to hear discussed. I would like, particularly, to direct attention toward the question of increased service for the patient himself, through a general medical examination. I would like to compare the results secured with the cost. I believe it is generally agreed, and also generally deplored, that in a dispensary, or a large out-patient department with a large number of specialized clinics, with the necessity of assigning the patient to that clinic which is indicated by the more acute symptoms, that it is possible in subsequent visits for the patient to choose the service to which he will go. Through the lack of a well developed

policy requiring definite medical responsibility for the follow up of the patient, a great many patients continue under observation for weeks, and possibly months, in specialized departments, without having a general physical examination. We subsequently find that valuable time is thus lost in starting treatment because we failed to secure an early physical examination.

About a year and a half ago this matter was brought to the attention of the staff of the Boston Dispensary through one of the committees which was interested in general medical examinations. After considerable discussion it was decided to try out a plan whereby patients coming to the evening pay clinics would be assigned to the medical department for a physical examination. This plan was at first intended only for new patients, because it didn't seem possible to provide physicians for the examination of both new and old patients. Later the plan was extended to include patients who had been carried under observation in specialized departments. The admission officer was instructed to explain to new patients the advantage of a general physical examination. As an inducement to the patient this general examination was offered free.

After about a month the results were analyzed and there was general discussion on the part of the staff as to the advantages, or disadvantages, of the plan. Some opposition was shown, particularly from the members of the departments of skin diseases and syphilis and of gynecology. Their objection was that, psychologically, it is important for the patient, particularly for the female patient, presenting acute venereal symptoms, to have the first interview with the specialist, rather than to undergo a general physical examination and then go to the specialist to go all over the history a second time. So a compromise was made and thereafter it was agreed that exceptions would be made in these two classes of patients; that they would first be assigned to the special department and that the responsibility be placed on the department of seeing that the patient later went to the medical department for a physical examination.

Later in the year the privilege of this examination was extended to patients who had for some time been under observation in special departments and still later it was extended to all patients on the same evening without any additional fee.

I am mentioning this in order to bring out the fact that for the year ending the first of last October, this plan had been in operation. With the assistance of Dr. Leslie H. Spooner, who is in charge of the evening medical clinic, we have made an analysis of the records of those patients in the medical department, who under the former procedure would probably never have gone to the medical department but would have been seen only in a specialized department.

It must be taken into account, therefore, that these figures which were made, not for the whole year, but for the nine months beginning with the first of January, apply both to new patients and to patients who had been under treatment for some time.

We found on analysis that 1,185 patients were examined in the medical department during this period of nine months. Of these 1,185 patients 706 were discarded as cases having general medical symptoms, who would have been treated in the medical department anyway. That left 479 presenting special department symptoms on admission, who would not ordinarily have gone to the medical department. My object is to bring out the findings in those 479 cases.

We found that 230 showed special department symptoms only. Nothing was found in them other than would have been found in the special department. In twelve cases the diagnoses were deferred, and in four the patients left before any diagnosis could be established. In the remaining 233 cases there were definite diagnoses of organic, or constitutional diseases, other than the special department diseases—48.4 per cent.

Further analysis of these 233 cases showed the following figures: There were 56 which showed constitutional diseases, including 30 cases of obesity, 6 malnutrition, 5 nephritis, 5 goitre, 2 diabetes and 8 others. Fifty-one showed cardiovascular diseases, including 17 of chronic endocarditis, 11 vascular degeneration, 19 of hypertension and 4 unclassified. Thirty-four showed respiratory diseases, including 6 of pulmonary tuberculosis, or questions of tuberculosis, with 28 of acute and chronic non-tuberculous respiratory diseases. There were 46 showing surgical diseases, including 23 general surgical diseases, 6 hernia, 5 varicose veins, 12 gastrointestinal conditions; 11 showed orthopedic conditions; 12 showed acute and chronic diseases of the tonsils. In addition 62 showed either pyorrhea or dental caries or both, making in all 249 conditions. However, 16 were counted twice, thus accounting for the 233 individuals.

This analysis, as I have explained, covers only 9 months' work. It seemed to me that it would be valuable to get from our records the cost of this work in order to determine its relation to the results. It is evident that it couldn't be done without considerable extra staff. As a matter of fact, we were obliged to employ three and sometimes four additional physicians, and one additional nurse.

In order to measure this I have gone over our records for the entire year; so that the cost figures are for the year, while the diagnosis figures are for nine months. We found that whereas the evening medical department in the previous year had had 398 new patients, during the past year there were 1,622 new patients, the difference being accounted for by these patients who were referred by the specialized departments. During the previous year there were a

total of 1,176 visits ; during the past year 3,306. In other words, the number of patients has been multiplied by about four, and the number of visits multiplied by three.

As to the cost, although the first examination was free, the follow-up visits necessary for treatment were paid for, if conditions were discovered requiring treatment. That resulted in extra fees. Our analysis of the cost showed that the increase in salaries of personnel was \$1,216.00, whereas the increased receipts from fees of patients was \$1,109.00, making apparently a net cost of doing this extra work of only \$107.00.

In conclusion, it seems to us from the first year's experience that the plan—which is, frankly, only an experiment—has been of sufficient success to justify continuance, first, because it has rendered, undoubtedly, more and better service to the patient himself ; second, because it gives us the satisfaction of feeling that better work is being done ; and in the third place, because it has practically paid for itself.

Meeting adjourned.

THE AMERICAN HOSPITAL ASSOCIATION.

Twenty-fifth Annual Convention, Milwaukee, Wis., October 30.
1923, 2:30 P. M., Mr. E. S. Gilmore in the Chair.

HOSPITAL CONSTRUCTION SECTION.

CHAIRMAN GILMORE: We are favored by having with us this afternoon Mr. John Holabird, Architect, of Chicago, who will give us a talk on architecture, bringing in something regarding hospital architecture. It was requested of him that he would make his speech both general and simple, because most of us need to be taught the rudiments of architecture. I think few of us know anything like what we should know and ought to know regarding this subject.

AN ILLUSTRATED TALK ON ARCHITECTURE.

By John Holabird, Architect, Chicago, Illinois.

My subject, "Architecture," is a rather broad one for a half hour talk. It can, therefore, be discussed only along certain lines.

It would be well, first, to explain what the general term includes. Many laymen believe that "architecture" means the design of the exterior of a building and associate the architect's work primarily with the ornamentation of a building.

Architecture may be defined as the art of building.

It includes plans, exteriors, details, structural and mechanical engineering, selection of materials and superintendence of construction. The plan is the most important. Without a proper plan the use of the building is limited or unsuccessful, no matter how well designed the exterior may be.

The study of planning is the most important part of an architect's education. The exterior may be considered a question of the personal taste and refinement of the architect. No two would solve the problem in the same way. But a plan must be logical, simple, with the proper relation of the various elements, providing easy circulation, good light and at the same time express the elevation the architect has in mind.

The structural engineering is a study in itself and one that is constantly changing. Recent progress in reinforced concrete design has affected column and floor construction and to some extent the selection of exterior materials.

Mechanical engineering, including heating, ventilation, plumbing and electric wiring, presents complicated problems to the architect.

The members of the Association have had much practical experience in the planning and construction of buildings and are familiar with the study necessary to perfect a plan, with the problems of a structural and mechanical nature. These questions are of a definite, tangible character which can be dealt with and decided by experience, good judgment and common sense.

The question of a more aesthetic nature, that of good proportion and beauty of exterior, is the one that I feel should be emphasized and discussed in this paper.

The exterior is a question of form, grouping (if a number of buildings are considered), style and materials, fenestration, proportion and ornament. Under all these heads the question of plan (though disregarded in this paper) has a decided bearing, and while the most important consideration in itself, it yet becomes doubly important when it is realized that the grouping, form, etc., are going to be influenced by the plan.

In other words, a plan should immediately convey to the architect and to the layman what the exterior is to be.

A plan, satisfactory as far as arrangement goes, may give a poor grouping of buildings artistically, while a second plan, equally good, will produce a pleasing group or silhouette and should be used.

The window arrangement may be ideal on the second plan, but when the exterior is laid out, the result is absurd. As planned the windows should be and generally can be so located that they will arrange well on the exterior.

This emphasizes my point that the plan is the most important part of architecture.

Let us simplify the question by narrowing the discussion to a single building.

The value of form is readily appreciable. Silhouette is of the utmost importance. By a pleasing roof line on a low building or a possible setting back of either upper stories or solarium in a high building, the structure is immediately given distinction and character. This depends, of course, on the proportion of the body of the building. This point came up recently on a nurses' home on which we were working. The elevation was perhaps unnecessarily ordinary. A suggestion was made that the silhouette be changed by setting back the upper three stories. The superintendent of the hospital immediately said that that was the idea he wished to convey. The exterior needed that added interest.

We come then to the question of style or character of the exterior itself. A natural question is, "Why should this building be Georgian? Why is Gothic used in the next building and Romanesque in another?" It has been said that "every building of architectural importance owes its form and details to some other building which

has preceded it." Each country has been influenced by or has been dependent on the architecture of some other country.

In each case, before a true style has been developed, there has been a long period of transition when adaptation of previous work has been carried on; new applications of old motives attempted, found satisfactory, and developed to the point where the new has but slight connection with the old, so slight in fact, that the period may be said to have its own style. This transition period covered a long period of years.

Style is a permanent thing. It is dependent on the art, refinement and culture of a nation. When these shall have reached a high stage of development in our country, we can expect a corresponding high type of architecture.

The structural principles have had a decided influence on style. The Greeks following the Egyptians used columns supporting a lintel. The Romans used the arch, vaults and the dome on a round plan. This was followed by the Byzantine with a dome on a square plan. Then came the Gothic with the high buttressed vault, pointed arches and vertical lines.

The next development is the modern skeleton construction which was developed in the United States. This development by mass and form alone has a tendency to produce a distinct style.

In seeking after a new style, some architects believe that this can be done by breaking away from all precedent, disregarding the worth and beauty of ancient buildings and discarding previous attainments as useless. This in the light of history is illogical. The production of a style is, as stated, a slow transition. Our buildings of today are better, certainly, than those of fifty years ago.

Examples of adaptation of various styles are familiar to everyone. Lantern slides will be shown illustrating various periods.

In adopting a style the fenestration and materials must be considered. Certain styles require regular window spacing—the Italian, Georgian, Colonial, French, etc. Others, like the Gothic, allow variety, in fact, demand variety, to give character to the style. The Gothic or Romanesque, however, necessitate the use of stone, whereas the Italian or Georgian can be handled with the larger proportion in brick.

Terra cotta can be used in conjunction with brick or where highly ornamented bands or surfaces are desired. Straight, unornamented ashlar shows the warp in surface and joints, and stone is better for this purpose. In a dirty atmosphere the stone will weather and become old in appearance. Terra cotta looks dirty. Cast stone has made a marked improvement in the last few years. The Ambassador Hotel, New York, and the new Chicago Stadium are good examples.

In any adopted or adapted style the character of exterior is dependent on good proportion, proportion of mass, openings, projection, mouldings and ornament. Proportion is a question of education and an appreciation of the beautiful. Good proportion has a distinct appeal to the layman.

The question of openings, mouldings, ornament, is a question of familiarity with the good examples and the reasons therefor. This applies also to the selection of texture of materials and colors.

Simplicity is a quality worth striving for. Ornament may cover a multitude of sins. Simplicity gives refinement and is the most difficult thing to attain—simplicity without baldness.

The whole problem is a question of study, of working over and over the plans and elevations, first determining the best general scheme in plan, then working on the details. This cannot be successful without sufficient time for study.

The architect should be given the problem in time to study the proper solution. Each problem is different and requires a different handling.

(Lantern slides were shown of various buildings.)

The members of the American Hospital Association are required to work with architects in the preparation of drawings for various types of buildings in connection with hospitals.

You stand in the position of critic to the architect and your criticism will be asked or given on the question of appearance and style as well as on matters of plan, equipment, etc.

To be an intelligent critic necessitates a proper study and knowledge of the subject, a familiarity with the good work done in the past, and a sympathetic grasp of the problem of the present. When this understanding is reached by the owners the practice of architecture will receive a much needed impetus and encouragement. The demand for the beautiful will exist. The architects should be able to attend to the supply.

As long as people are content with badly proportioned structures, crude and unstudied in detail, just so long will we fail to make material progress along architectural lines.

DISCUSSION OF THE REPORT OF THE COMMITTEE ON FLOORS.

(For Report See Opening General Session.)

MR. F. E. CHAPMAN: I do not know just how to start a discussion on the Report of the Committee on Floors, but in talking this over with Mr. Gilmore yesterday afternoon it was suggested that probably a review of the pertinent points in the report of last year might draw some fire, and therefore here it is.

Last year we attempted first of all to get you to evaluate floors as you saw them by sending out questionnaires to some 1,200 hospitals in various parts of the country, to which we got 19 replies, as I recall it, demonstrating either that you did not know very much about floors or were not very interested in floors. As supplemental to this information we attempted to build up, by means of laboratory test, certain information on the subject of floors.

First, an attempt was made to establish certain prerequisites to a good hospital floor, these being appearance, sanitation, durability, maintenance, noiselessness, comfort, fire resistance, acid and alkali resistance, ease of repair and continuous availability. I do not mean that those are all the requisites of a good floor, but I do mean that they are the basic requisites as your committee sees them.

In an attempt to also definitely outline a basis for analysis, we determined that a hospital could be divided into the following groupings, these groupings being for the purpose of discussion: Private rooms and wards, service rooms—those service rooms including utility rooms, kitchens, toilets and baths, corridors, service corridors, laboratory, operating rooms, out-patient department, treatment rooms, out-patient department corridors, kitchens, offices and laundry. Since then we have felt that stairways and stair treads should be another classification.

We then determined upon a division of floor materials into a certain grouping that I am not going to read.

The next step was to develop some laboratory tests that would, as nearly as possible in the short time available for our purpose, approximate, in terms of laboratory findings, actual service conditions on floor, and to that end there was a test developed on abrasion, another on resistance to pressure, another on fire resistance, another on absorbency, another on acid and alkali resistance and another on staining.

I am not going to attempt to review the table of recommendations of the last year, but merely call your attention to the fact that your committee recommended in a consideration of floors that you think in terms of two types of floors, either a hard or a soft type of floor, recognizing that neither the hard nor the soft types were applicable to all services, but believing (and the committee reiterates its recommendation) that the soft type of floor should be thought of to a greater and greater degree in hospital operation.

This is to be a discussion; I do not want it to be a monologue.

This is a resumé of last year's report. Now please let me have your questions and if I cannot answer them, I will not hesitate at all to say so.

MR. EDWARD L. FARR: I would like to make some remarks. I heard the report last year on floors with a great deal of interest and

I feel that I possess some qualifications for expressing an opinion in regard to floors in hospitals and elsewhere, having been for four generations, I might say five generations, with my sons, engaged in the manufacture of flooring material such as floor oilcloths and linoleums. About twenty years ago I became greatly interested in hospitals and during that period I think I tried every possible experiment in the way of laying linoleum and its kindred products in the various portions of a hospital. Being at the head of a linoleum factory, and having a hospital (of which I was president) within half a mile, I was in position to try out anything that the factory developed, in the hospital in a practical way. The report given last year, in dividing the classes of flooring into two kinds, a hard surface flooring and a soft surface flooring such as linoleum and rubber, certainly gives us the opportunity of finding in what department we should use a hard surface and in what department a soft surface.

Linoleum and cork, carpet linoleum, tiles of various kinds, have a very distinct place in the usefulness of a hospital, particularly in dining rooms, in private patients' rooms and in many of the departments. I have used them in every department almost of a hospital except an operating room, with varying degrees of success, and I want to show you I am entirely unprejudiced because I have used more hard surface—as Mr. Chapman calls it, floor—than I have linoleum, believing that a hard surface terrazzo floor is most adapted for a great many places where germs are not to be neglected and where absolute cleanliness is most desirable. There are only two points I want to make in regard to the use of linoleum, and I might say that I am not largely interested financially in the use of linoleum because I have sold out my business. Therefore, I am not interested particularly in linoleum—I am more interested in hospitals. There are two things about linoleum in a hospital that are absolutely necessary. The first is, it should be properly laid. The laying of linoleum is almost an engineering proposition. Linoleum is not laid properly, if the cement with which it is fastened down is not waterproof cement; I take it for granted that you will not lay linoleum without cement, because if it is near sterilizers, the water will get under the linoleum and rot it. I have been through that so many times that I hold it to be an absolute requisite that a waterproof cement should be used in laying linoleum.

A newer system of using linoleum is to cut it up in small pieces like tiles, which does offer some advantages. Waterproof cements are very apt to be gaseous and make bubbles which form places where the cement is not fastened to the floor. The use of smaller pieces of linoleum in the shape of tiles obviates that difficulty. In buying linoleum of any kind be sure that your contract calls for the use of waterproof cement all over the surface of the room, and look

after your laying more than any other thing. As to the quality of the linoleum itself, if you will see that it is guaranteed and if necessary have a test made according to U. S. Navy standards, you cannot make any mistake.

Another thing I want to speak of is the proper care of linoleum by varnishing and waxing. Waxing linoleum keeps it in condition for satisfactory use; there is no question but what a proper treatment of that kind makes linoleum far more desirable in a hospital. Thank you.

DR. YOUNG: Can linoleum increase the fire risk in a hospital? Also I wish to ask how readily does linoleum show spots or become soiled by acids?

MR. CHAPMAN: Our tests of last year showed that linoleum had a very low fire resistance. I am not competent to state whether the underwriters will construe it as an increase in your fire risk, but the tests carried out last year showed that it had a low resistance to a lighted cigarette. So far as acid and alkali resistance and staining are concerned, linoleum has a high capillarity and you will get a rather easy staining of the substance. It depends entirely on your commodity. Some stains can be easily removed; others are absorbed. The report of last year on the question of the staining of linoleum gave the different ones a rating of B and C, I think, on those two phases.

MR. KENYON STEVENSON: In regard to the question just asked—the Western Actuarial Bureau classes linoleum for fire insurance rates in the same class as terrazzo, concrete and other substances of that kind in fireproof buildings, 7% preference over wood floors. With regard to the staining of linoleum, I believe if linoleum has been properly waxed and polished, you will find that the stain is not nearly so bad as when you drop the stain on the untreated linoleum surface. All the linoleum manufacturers are united in recommending the waxing treatment for linoleum floors.

MR. LUTHER H. LEWIS: I do not suppose that any architect, more than the doctor or superintendent or others interested, can tell what is the ideal hospital floor. The conditions in different parts of the hospital, as we know, require particular types of floor.

In our own experience we were, until the past year or two, hesitant about the use of linoleum in private rooms; our feeling was that the regular, plain brown linoleum gave the room too much of the kitchen appearance; however, with the improved and variegated coloring of linoleums, the floors can be made quite attractive. It will be noted that such a floor corresponds to the prevailing hotel practice, where carpeting covers the entire cement floor; the carpeting, of course, would not be advisable in a hospital, but a floor

of selected linoleum as suggested, with a rug or two, can be made, in my opinion, very attractive.

I do not know why the discussion seems to lead entirely to linoleum, unless it be that circumstances have, more or less, determined the issue; as the speaker on architecture has stated this afternoon, we are getting in all buildings a more simplified type of architecture and I believe this applies in a special way to hospitals. "Necessity is the mother of invention" and those interested in hospitals find, under the prevailing building conditions, that the funds are needed for more practical purposes than exterior ornamentation. This applies also to the many details in the interior and probably one big reason for the extensive use of the linoleum type of flooring is its low cost as compared with other types of floors. It is not only economical but, as we know, is a most sanitary, soundproof and resilient type of flooring and, as before suggested, can be made quite attractive in appearance.

It is my understanding that at the discussion a year ago there were those who advocated wood floors for private rooms and it would be well to hear from them further. I believe we all agree that where funds justify the terrazzo floor, or at least a wide terrazzo border around the room with cement finish in the center as a base for a large size rug, this makes an attractive room. I believe, however, under all conditions, that linoleum should be used for the walking surfaces in all corridors, excepting those connected with the operating department.

DISCUSSION OF THE REPORT OF THE COMMITTEE ON BUILDINGS— CONSTRUCTION, EQUIPMENT AND MAINTENANCE. (For Report see Opening General Session.)

MR. PERRY W. SWERN: In this paper of Dr. Goldwater there are very many instructive and interesting features and I am mighty glad that the paper is in printed form so that we can all take it home and study it over. In going through it we notice particularly a great deal of feeling in favor of keeping down building costs and a great many suggestions all the way along to reduce costs. These are all very fine. I would like to refer back to the 1916 convention of this Association, in which Mr. Bacon brought forward some new ideas about planning and some new suggestions about how hospitals might be arranged to give a better service for a smaller charge. Since that time a great deal of studying has been done in developing what has now come to be known as a system of planning by "measured circulation." By "measured circulation" we mean actually *counting the feet of travel* in all of the various departments—the dietary department, the linen service and all of the nursing on the

floors—the whole idea being to eliminate wasted steps, to cut down the nursing radius, to get the patient in a compact nursing unit and to cut out all spaces that are not absolutely necessary in taking care of the patient on the patient's floor. This system has brought out some rather radical ideas, and, in the group of hospitals now just coming into the hospital field, if the system works out to the full extent it is going to revolutionize some hospital planning ideas of the past, and I think it behooves every hospital superintendent to look into this system and see what these hospitals are doing. There may be some features there that are not right, but they should be studied and criticisms of them and suggestions as to how they can be improved will be very much welcomed.

MR. EDWARD F. STEVENS, Architect, Boston: There are so many points in this report which are of vital interest to me that I hardly know which to speak of first. The first I noticed is the question of sound deadening. One of the gravest criticisms which we hear of hospitals, particularly new hospitals, fireproof hospitals, as we go through them, is that of noise; how can this noise be prevented? That is a question which I think we as architects ought to diligently study. At present I feel it is so important that we are specifying in our new hospitals sound deadening in the corridors and in the busy rooms like the sink rooms or service rooms, and in that way we are deadening or at least minimizing the amount of noise.

Type of construction: I notice in Dr. Goldwater's report, particularly in one of the suggestions made by Mr. Brunner, that tile partitions were perhaps the best to use. We have found by experiment that a much simpler partition, of two inch solid plaster, is quite as non-productive of sound as one much thicker. That was illustrated at our Cincinnati convention I think very clearly in the Good Samaritan Hospital, and there we found that the noise transmitted through a two-inch partition was very, very little. It is a very important thing that we should provide for deadening of noise however produced.

Another question which Dr. Goldwater brought up is the question of the private room versus the ward. It would be ideal if we could have in every one of our hospitals all private rooms and if we could construct, maintain and administer these hospitals with an equal degree of simplicity and cost. That is the ideal thing, and I do believe we are coming to the time of smaller and smaller wards, of giving all our patients a certain degree of privacy. This may be done as we are doing in several hospitals right now, by making sub-service rooms between small wards and dividing these small wards into cubicals with permanent screens between the beds, making a compartment for each bed, thus giving each patient in the ward much the privacy of a private room.

Another point which Dr. Goldwater brought out was the concentration of units. This seems to me of vital importance. Instead of spreading our hospitals out, they should be more concentrated. Sunlight is an important factor. I think we should never forget that; it is better if possible to have sunlight in every room. The cost—I do not think I'd better discuss the cost, that is a thing which no one can tell; it all depends on the local conditions and the material used and the varied purposes for which a hospital is built. I do not think anyone can standardize the cost; but every hospital should be made to function for the purpose for which it is designed and that should be the main thought in planning a hospital, i. e., to design it around the patient.

MR. CHARLES BUTLER: I have not much to add to the discussion except one suggestion brought out by Dr. Goldwater's report. He referred to the use of stucco on the exterior of a building, on common brick. In the case of the hospital in New York to which he referred, it was not an economical proposition, it was not done for that purpose, because they used a very expensive form of stucco; but in ordinary hospital work I have found a distinct saving in the use of common brick laid up in common bond and then a good stucco cover as against face brick. There is not only the cost of the brick, but the cost of laying up, because if you are laying up face brick in Flemish bond, or English bond, your labor cost is increased very much.

In regard to the question of linoleum floor covering—I am not interested in selling linoleum, but I do not think it is quite fair to speak of the fire hazard in connection with this material. I have never heard of the use of linoleum increasing the fire hazard in any case, that is, linoleum which is cemented down on a concrete floor, which is the only way you do it in a new building.

One word also as to terrazzo: I think all of us have been up against the terrible appearance of terrazzo when it cracks. There is a new modification which they call "Cloison—A" terrazzo, where it is divided into squares with brass strips; I have used that in department store work with considerable success. The floor is divided into blocks about two feet square by these strips of brass, and when a crack comes, all you have to do is to cut out one or two or three squares and relay that section. I offer that for what it is worth.

MR. MEYER J. STRUM: The genesis of all our troubles at the present time in our hospital construction seems to be a lack of understanding of what we are endeavoring to do in regard to building. Some time immediately after the war it was suggested that it might be very good indeed not to rush into building, and the consequence was that nobody rushed into building. Shortly afterwards, there was an awakening to the fact that a housing shortage existed. The apartment building, the apartment hotel and residences went up with such

rapidity that the price of all labor and material rose immediately. Now this is the very thing we are going to do, in trying to avoid, in our hospital building program, the paying of prevailing prices. What we are going to do is to repeat the former folly—all rush in at the same time when necessity demands that we should go ahead and provide more hospital beds. At present we have probably one-third to one-half enough hospital beds in this country, and you all are beset and worried by that particular problem of having to go in at some near day to alleviate the shortage. You are all holding back now and are all going to go forward at the same time. As a plea for better hospitals and those built more economically, let us go ahead now and build progressively for our needs rather than to all rush in at the same time and try to build too fast.

I wish to say that when Dr. Goldwater sent out his questionnaire as to what was the opinion of the architects, I replied that we would probably have to do what the Romans did many years ago, when the laws became so complex that to obey the law was to break it, and which resulted in the destroying of the law books and the promulgation of the Justinian code. This means to simplify, and go back to first principles. My difficulty has been, in handling this hospital problem, to deter people who are building hospitals from trying to get everything into their hospital that everybody else has. Everybody that comes along tells them about something that has been very successful in their hospital and then this becomes a necessary part of or an adjunct in their own minds, something they must have or at least something like it. This has given rise to a tremendous complexity which is a reflex, no doubt, of our own complex method of living nowadays. I am making a plea for more simplicity and taking the entire problem out of this complexity. If we are now going to standardize, let us standardize ourselves first.

DR. C. O. YOUNG: I used stucco on cheap brick when I started to build, and now I wish I had not. I put on more stories and had to build more scaffolding and that stucco became very expensive and as I contemplate going still higher, I see it will cost still more. Then, too, it is very difficult to get contractors to put on stucco so that it will stay. I have to have it patched up every now and then. It makes a good job when it is properly done. I will say this, if anyone wants to try stucco, they should use it on a low building not over two stories, and see, too, that no water can possibly get under that stucco, by not having any cornices or water pipes so that they may leak and the water get up underneath the stucco; if it does, the water freezes and is bound to make the stucco come off.

As you were speaking on floors a while ago, I was thinking of a little experience I have had myself and each time I changed my floor. I visited a hospital here today and found they had good floors in

the rooms, terrazzo floors in the halls and operating rooms; so that apparently even the later buildings are not sure as to what floor is the best. The wood floors that I saw here in this very late building are certainly beautiful. That floor is attractive and has its advantages, but one thing that the committee called attention to is lacking, as those rooms are put out of service by revarnishing. On account of cost, in this last addition we are building we stopped with a cement floor for the reason that if I wanted to cover that floor with linoleum or any other material, I still had a chance to do so and at the same time have a good temporary floor at a reasonable cost. A good cement floor can be covered with a rug, which you can take out and clean or use your vacuum cleaner. This gives a good floor in a private room. You can have a border a foot or a foot and a half around that rug and you will get away with your floor problem very cheaply.

DR. R. G. BRODRICK: This report is one to which we all should give attention. It refers to certain things that are very interesting. One of the most perplexing I have to handle, being a consultant, is operating room lighting. The report refers to the daylight lamps, but I refer particularly to the type of fixtures. Dr. Goldwater alludes to individual units in refrigerators electrically operated, a very interesting subject, and possibly through some of the modern machines we are advancing in the right direction; but we have to think of the multiplicity of troubles in establishing so many individual motors. We must provide adequate service for future expansion even if that, for the time being, seems to produce a rather high unit cost per bed. In this instance we must talk of the cubic foot cost of construction rather than the cost per bed.

Economy of hospital construction opens up the whole question of whether we can, as we advance in hospital planning and building, consider that as much as the giving of proper hospital service. Every one will grant that when you put the cost on one side and proper service on the other, there can be no question. Even agreeing with Mr. Sturm's argument for simplicity, we must think of better service rather than a return to simplicity. I agree with him that there is a tendency, at times, to put everything in hospitals that everybody has seen, but with the development of smaller units for patients, we must give to those smaller units compact service adjuncts, especially from the plumbing standpoint, so as to reduce cost of maintenance; in fact, the thing to settle at the time of building is what is the cheaper way to approach this complicated subject. I like to feel that when we decide to adopt a thing, that is going to be the last cost, or by adopting a cheaper thing, are we going to start in a heavy cost of maintenance? If we take that viewpoint much of our troubles will be lessened.

A thing that has often impressed me as being necessary in hospital planning would be the attempt to get the various concerns that handle built-in equipment, such as plumbing fixtures, sterilizers, etc., to come together in such a way that we could so *rough-in* without committing ourselves in advance to certain fixtures, thus eliminating proper competitive bids.

I hardly agree with the report, although I happen to be a member of the committee, as to the desirability of postponing painting until after a year's service, as the economy on the one hand would be more than lost in the detriment to the building on the other hand.

I would like very much to ask of the Committee on Floors if they would not make a study of the base, as well as the floor, because I cannot separate one from the other. That subject has hardly been investigated. In the matter of linoleum, I think that the introduction of the electric floor polisher has produced a marked change. Years ago we used to wash linoleum; nowadays, under proper management, we hardly touch it with water, we eliminate that by having the electric floor polisher. Linoleum, judged from the economical standpoint, comes pretty near being the ideal floor.

MR. CHARLES F. NEERGAARD: I have been in the building business for a great many years and as a hospital trustee I have given a great deal of thought and study to the planning and construction of hospitals. In visiting many hospitals in different parts of the country I have reached the conclusion that hospital planning has been too largely guided by theory and tradition and that there has been too little tendency on the part of the architects and building committees to challenge the traditions in hospital design—to find out whether the old type plan is really the best and whether it cannot be improved upon.

The average hospital plan by an architect who has had no hospital experience leaves much to be desired. I do not refer, of course, to hospitals planned by the architects who have spoken here today, who have made a most thorough study in this special field. I commend to everyone who is going to build a hospital to put Dr. Goldwater's report in the safe and read it religiously from one end to the other when the time comes to prepare plans and specifications.

My impression as a layman in going through hospitals is that there is a tremendous amount of waste space—great wide corridors, high ceilings, and large wards which are very lacking in flexibility. Take the average 24-bed ward. Tradition has it that each bed should have 1,200 cubic feet of air space. The hospitals of this country run only from 65 to 70% capacity, which means that in the average 24-bed ward there are rarely more than 18 to 20 patients at any one time. The result is that instead of 1,200 cubic feet each of the 18 or 20 patients has from 1,600 to 1,700 cubic feet, so that

the wards have far more cubical content than is actually needed to carry the normal load. We should build and plan for normal rather than peak load and thereby save many thousands in each building, for each cubic foot of space, whether at the floor or the ceiling, costs just as much to build, heat, clean and paint throughout the life of the institution.

The easiest way to reduce the cost of your hospital, if you are going to build, is to eliminate waste space. If we take a leaf out of the book of the practical man, we will analyze our plan carefully before we go ahead. There is a company in New York that lends money on mortgages on large apartment buildings. They finance the construction and sell mortgage bonds guaranteed against the general mortgages. They have a rule of thumb for analyzing an apartment house plan, which is something as follows: A square building is the most economical way to enclose a given area, that is, four walls of equal length. This is considered 100% on the basis of wall area. They have learned from their experience that an apartment plan is economical, if the length of all exterior walls does not exceed by 80% the length of the same area enclosed in a square. When this is the case they know that it is economically planned and a good building on which to make a loan. A second method of analysis used is to take the total number of square feet on each floor and divide it by the number of rooms, omitting corridors, stairs, baths, etc. If the result does not exceed 225 square feet they count it an economical and efficient floor plan and decide that the apartment will be satisfactory to rent or sell on a cooperative basis. These are the two methods that they use to evaluate a building for the purpose of making a loan. Some similar analysis could readily be adopted for the study of a hospital plan.

In the past few years there have been many progressive improvements in the character of our newer hospitals. The psychology of the sick is being recognized more and more. Good sunlight, proper ventilation, and cheerful, attractive surroundings have been proven to have a definite therapeutic value. The more a building is concentrated the more economical it is to build and operate. There are many examples of hospitals in this country which are widely spread out where the cost of operation is excessive. One of the newer hospitals in New York is built in the shape of an X. This gives the maximum of light in every room, but in the center of the X there is a great space which cannot be put to any efficient or useful purpose. It is a beautiful and elegant building, but the cost of each room must bear its proportion of all this unused area.

The general form of your plan should be analyzed carefully. Take the question of how high up in the air to go. The original hospital was a one-story unit. Take the army hospital, for example.

A typical ward was 100 feet long and 25 wide, containing from 25 to 30 beds. In such a one-story building there are 2,500 square feet of roof. If you build a 100-bed hospital in four one-story wings of this size you will have to provide 10,000 square feet of roof; but if you place these four wards one on top of the other in a four-story building you have but 2,500 square feet of roof, a saving of 7,500 feet. With a one-story unit you must have long connecting corridors, which are expensive to heat and maintain. The cheapest transportation is up-and-down. The cost of stairs and elevators will be more than met by the omission of the long connecting corridors and you have a concentrated unit where service is more economical in time and effort.

I had the most enjoyable hospital experience of my life yesterday when I spent the day in Rochester, Minnesota, and I would commend to other hospital executives a trip to that interesting city. St. Mary's establishes a new standard of perfection in upkeep and maintenance. It is almost unbelievable that a place could be so clean. The hospital is spacious and must have been very extravagant in first cost. It covers a large area of ground. There are 75 beds on a floor, 25 in each of the three wings. The rooms are large, there is excess plumbing, but for the purpose it seems admirable.

In planning a hospital we should consider, first, the patient and realize that the more effort we save physicians, nurses and employees in caring for the patient, the better the service they will give. Make the patient's unit a concentrated group of rooms and utilities. Design your patient's unit first, and then build the rest of the institution around it.

There is one more point in the report of the Committee on Plans of which I wish to speak, and that is the dangerous tendency of cutting out important elements to cut down cost. We cannot get away from the present high cost of building and I do not believe the prices are going down for many years. The old normal cost is a thing of the past and I doubt whether any of us will see it again in our lifetime. Dr. Goldwater particularly emphasizes the false economy of cutting out service units. Whatever we build we should build well and completely. We should eliminate waste space and cut down the capacity of the hospital rather than cut out essential units which make for the comfort and better care of the patient. Plan your first unit so that you can add beds around the original service units.

DR. W. L. BABCOCK: I was glad to hear Dr. Goldwater state his preference for brick-and-steel construction as compared with reinforced concrete. I think that our experience with the reinforced concrete building goes to show that it costs us more to deaden or prevent sound transmission. We have learned from experience that

walls of concrete act more or less as sounding boards and are too hard to change as may be necessary when partitions have to be drilled or moved. I think those of us who have had to do with the construction of hospitals in late years by hospital architects who have specialized in the work, have found that we have saved money and saved many things in our construction by having the services of a hospital architect as a consultant. If you plan a building you want to make an effort to get the special hospital consultant in your architectural work. It will save you money and save you much in the operation of the hospital in years to come.

Experience with linoleum floors has been to the effect that the weight of beds, furniture, desks, etc., produces depressions in the floor that you cannot overcome unless with glass feet or some special arrangement, and we are doing away with this material. I am very partial to the terrazzo floor; I believe it is economical and if laid with brass strips should give you adequate and durable service.

CHAIRMAN GILMORE: Let me, as a hospital man, say that I vote for terrazzo floors here. We have had them in our hospital for twelve years and would not trade them for any others, and we have wooden, concrete and linoleum floors.

DR. W. A. ROBINSON, Cincinnati, O.: As a financial secretary, I am deeply interested in the question that was raised here a moment ago as to the importance of being able to manage our interests in an economical way so that we can allay objections that arise with reference to the extreme cost that people sometimes feel is assessed upon them. Sometimes people get the impression that a hospital is a speculation, that we are speculating on people in the time of their helplessness, and whatever can be done should be done to educate people and make them understand that the running of a hospital is not a cheap proposition. We cannot cheapen, we dare not cheapen, where life and health are at stake. We cannot cheapen, we cannot come down to the level of the people who think that they ought to get things cheap at a hospital. Now in the construction of every one of our hospitals, we construct them with reference to the fact that in view of this—that we are dealing where life and health are at stake—we dare not leave out anything which will contribute to the end we have in view. We are accountable to God and humanity for the way we administer the affairs that are committed to us, and so, while we are concerned about making people understand the expensiveness, we cannot afford to cheapen our work.

MR. CERVIN: There is one thought I would like to carry to you as a suggestion from the doctor from California. He spoke of standardization. I think if we all get back of Secretary Hoover and help him in the magnificent work he is doing in standardizing the manufactured products of our country, it would be a good thing for

the hospitals as a whole. He is doing that through committees. In bricks he has reduced the number of sizes from something like 65 to 6 or 8, and he is carrying that through in very many departments.

DR. WALTER H. CONLEY: I have had some experience with terrazzo floors and with brass strips. There is no doubt but what the laying of terrazzo floors in five-foot squares with brass strips in between will prevent their cracking. If they should crack you can remove the terrazzo in that space and relay it. As you all know, you cannot repair the cracks.

Mr. Swern spoke of the cost of building. I do not believe that the price of labor and material is going to go down for three or four years. During the past three weeks in New York City they have been making a budget, and as you know, we have a great many employees who are laborers, and members of all the various labor organizations, such as carpenters, plumbers and mechanics of all kinds, and instead of agreeing to a decrease in the price of labor, they have insisted on another increase. Now if they are insisting on another increase in New York City, they will do so in Chicago, Milwaukee and all other places. They are asking as high as \$12.00 a day for some of the men that work in the construction of buildings such as hospitals. If they are going to increase the cost of labor, where is the cost per bed of the hospitals coming to? Instead of \$2,500 or \$3,000 as it was ten or twelve years ago, or \$5,000 as it is at the present time, it will be \$7,500 soon. There will be no limit, and where are we going to get the money with which to build hospitals, if laborers continue to increase their price? I think we ought to think of that.

COMMISSIONER WRIGHT: One thing that has impressed me quite frequently is the lack of a thorough consideration on the part of the trustees of the relative cost of the building and the subsequent cost of operation. By the provision of handy places for getting and emptying water, places for bed pans, etc., operating cost can be markedly reduced and the strength and time of the nurses conserved. What relation does a reduction in operating costs bear to the investment? The tendency of the trustees, many times, is to put their money into as many rooms as possible, ignoring the fact that if the rooms are without handy facilities, the subsequent operating costs are unusually high. Any who have a hospital project in hand—if they can start figuring from a basis of convenience, for instance, to put water, toilet and bed pan services within easy access, the operating costs will be greatly reduced. Such matters should be given consideration at the initiation of the project.

Meeting adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, October 30, 1923, 8:00 P. M. President Bacon in the Chair

GENERAL SESSION

PRESIDENT BACON: We are very fortunate in having a Commissioner of Health who works in full cooperation with the hospitals. I believe also that the hospitals are working in full cooperation with the department of health, at least they are trying to. Dr. Bundesen, our Commissioner, not long ago was publicly commended for the work that he is doing in our great city in the matter of health and the cleaning up of vice, and I feel we are very fortunate to have Dr. Bundesen, Commissioner of Health, Chicago, with us here tonight. He will speak to us.

DR. HERMAN N. BUNDESEN: Robert Blue, former Surgeon General of the U. S. Public Health Service, in commenting upon disease, says that disease conditions must be exposed to the cleansing light of universal knowledge, as they maintain themselves almost entirely on public ignorance, and that is the benefit of meetings of this kind; I might make a public acknowledgment here, that in Chicago the Commissioner of Health in a great many instances is nothing more than a rubber stamp in putting into effect those things that he is advised on. We have an advisory staff; members of your Hospital Association are members of that advisory staff. When matters pertaining to hospitals are to be taken up, we call those men in, we confer with them and we put into effect the things that those hospitals think are best, because after all it is not my health department, it is the people's health department and it is the health department in which the hospitals are very vitally interested.

We feel that there should be a complete and harmonious cooperation between health departments and hospitals. My experience has taught me that hospitals are valuable assets to the man engaged in the practice of preventive medicine. As a rule there is centered in the hospital the best type of medical and surgical men. We look to these for cumulative evidence concerning diseases the result of practices that affect the death rate. Through the work of the hospital staff comes much of our knowledge for the prolongation of life. Today the hospital is a necessity. It is a life saver and, of course, essential to the success of the sanitarian. The better care of the sick is assured where adequate hospital beds are provided for a community.

In one way, which is unavoidable, hospitals in a large city increase the death rate of that city. Good hospital services attract patients from suburban cities and the surrounding country. Such patients do not seek hospital treatment, as a rule, for slight or trivial conditions. Many come when they are in a desperate condition and many of these die and under our rules such deaths are charged to the city to which they have come, though the patient lives in a neighboring city. This increment to the death rate is offset by the many cures effected through the better care of the sick and injured to be had in hospitals.

The responsibilities of the hospital to the public health activities are defined by ordinances which are enacted for the establishment and control of hospitals. In the administration of hospitals, we find almost universally that those responsible for the management of such institutions are anxious to conform to all the rules and regulations imposed by ordinances. So long as they do this they will be in complete harmony with public health workers. Sometimes rules of health bodies may seem unnecessary and especially is this noticeable where such rules add to the expense of caring for patients. It is best for hospitals to cheerfully obey such rules for they are based upon experience and accumulated knowledge and work for the public good and, in the long run, that which is best for the public will prove best for a hospital. A hospital, like other business enterprises that serve the public well, will merit and receive the public support. In efforts to prevent typhoid fever in Chicago, what has appeared to some to be unnecessary restrictions have been imposed. Before these rules were imposed it was not uncommon for interns and nurses to contract typhoid fever from typhoid patients carelessly cared for. Only a few years ago several deaths occurred among the interns in a large hospital in Chicago. It cost the lives of two young doctors and a nurse before they heeded the rules of the department of health.

It is highly necessary that the departments of health be promptly notified of any communicable disease entering or developing in a hospital and that such cases when discovered be promptly isolated. In the case of communicable diseases this duty is obvious and generally recognized in hospitals, but there is a certain per cent of the employees who are neglectful and fail to comply with the rules governing these diseases. The duty to keep help that will do their whole duty rests with the governing body of the hospital and here rests the responsibility of the hospital staff and officers.

Those who fail to make reports of contagious diseases can be prosecuted individually and fined, as well as the hospital officials, but the rules of the hospital should make a failure to report any case of contagious disease impossible.

Many of the non-contagious diseases, degenerative diseases, have become the concern of health departments. Goitre is largely preventable and must be so classed. The hospital should join hands with the department of health to disseminate knowledge of the means for preventing goitre. You belong to a class of men who have generally placed the needs of humanity first and if you could prevent all cases of goitre, I do not doubt for a minute that you would do so though the act would keep patients out of your hospitals.

The prevention of needless smoke pollution of air is health department duty and here the hospital has an individual as well as a public responsibility. Smoke polluted air increases the incidence of acute respiratory diseases.

Those diseases brought about by faulty living habits must be the concern of all health departments as these are preventable and the hospitals can be leaders in giving out rules for right living, such as proper diet and other health giving habits. The hospital receives the patient after a long period of evil practices which culminates in a degenerative disease. Hospitals have exceptional opportunities to study such diseases and to formulate living habits for the young which will prevent the son or daughter from following the health destroying course that led the father or mother to the hospital. Again, you must apparently work against your financial interest. I say apparently, because it really works out to our interest. There are many examples where prosperity of hospitals followed their efforts to teach right living. People will seek the place where the best life saving information is to be had. Rochester, John Hopkins, and numerous other hospitals can be cited as examples.

Health departments should be centers for the dissemination of correct information with a view to preventing disease. The hospitals should and do supply information which the departments of health can assimilate, and, with their legal powers, apply in their efforts to better the health conditions. The hospital is the natural sympathetic ally of the progressive health department. We had in Chicago for a number of years a high death rate from typhoid fever. We established a rule at that time that no case of typhoid fever

could be treated in a hospital that did not have an attendant who did nothing but take care of typhoid fever. That rule is still in effect in the City of Chicago. Some people claim that is a hardship. The year that rule went into effect there were 107 cases of typhoid fever among nurses, interns and patients (appendicitis and hernia cases), where there were cases of typhoid fever in that hospital and where the nurse took care of the cases of typhoid fever, and, at the same time, took care of the other cases. We went on the supposition that in the first place a hospital cannot take care of typhoid fever, that is, a private hospital cannot take care of a case of typhoid fever properly in a ward and give it the attention that it should have. It is an injustice to ask that hospital to do that and give it the attention that it should be given. Our system has worked out pretty well. For the past five years we have had a lower typhoid death rate than any other large city in the world has had; it has been so low that now we are going to change our rule in Chicago, we are going to modify our rule just to see whether we are right or not, and we are gradually going to come back a little to our old system and see whether we get cross infections.

For the spirit of cooperation in the City of Chicago from the hospitals I want to express my thanks, because without exceptions each one of the hospitals has religiously and strictly adhered to our rules regarding the matter of contagious diseases and that is one where the hospitals and health department must work in close cooperation.

It might interest you to know that a survey recently made in the department of health shows the city of Chicago (and Milwaukee is no exception) to be one of the worst goitre belts in the world today. I wonder how many of you grasp the full importance of goitre as a public health problem, when you realize that thousands of little children in the City of Chicago and the City of Milwaukee are suffering from goitre, which could be absolutely prevented. If you will note tomorrow as you walk along the streets of the City of Milwaukee or of your own community if you are in the Great Lakes belt, you will be astonished to see the ever increasing number of young people who are suffering with goitre. Now, goitre is absolutely preventable; all you have to do is to feed a little bit of iodine to the child, a very minute quantity, twice a year, and we would have no goitre; and still, through lethargy and a lack of that thing that goes to make for understanding, this so-called personal liberty makes it impossible for us, realizing that, to remedy the condition.

In the City of Chicago, and in the City of Milwaukee, we both use chlorine for the treatment of water and all the water is chlorinated, and between the two of us, your health commissioner and the health commissioner of Chicago, sometimes we run a competition to see who can get the most chlorine into your drinking water. I think we win oftener than you do. I am seriously thinking, but I cannot get support to work out a scheme whereby we can slip in a little iodine in the drinking water, but I wonder what effect it will have. We pump in the City of Chicago eight hundred million gallons a day and if I slip this iodine into the water and the Mrs. on Monday does her washing and we get it into the starchy goods, I wonder how much more condemnation we would get. I meant to make a correction there—that we pump in the City of Chicago every day eight hundred million gallons of water, except Saturdays and Mondays. Saturdays and Mondays we pump nine hundred million gallons of water. Saturday is still the national bath day and Monday is still the national wash day.

We have many, many other diseases—cancer, for instance. Some newspaper men were in my office the other day and asked what the solution of the cancer problem was. I answered it in one word; I said I thought the hospital. If we could get these cases early for diagnosis and early for treatment, I am sure that we could make a great impression. The hospital is the natural and sympathetic co-partner of the health department. That is fundamental.

I have one more thing that I am vitally interested in. I would like to leave it to the American Hospital Association as a thought. It comes close to me, very close to me, because I have six little children and the oldest one is 13 years. Somebody asked me why I was so bitter against birth control, and I said I had six reasons and they got out a pencil and wanted to figure out what they were and I told them those six little kids of mine. You to whom children mean a great deal—I wonder whether you realize the big situation that confronts us and which is seemingly neglected by the majority of our hospitals? I am referring to the social disease situation. There are more people innocently suffering from social diseases than from any other disease. I was interested in reading the 28th annual report of the State Board of Health of Wisconsin recently published, in which the statement is made that we must look upon syphilis as a misfortune and not as a badge of immorality; the wives and children suffering from this disease are many, this group comprises about 50% of all syphilitic cases in Wisconsin.

Syphilis is the most universal and virulent disease in the world today. What provision have our hospitals made for handling these social diseases? Dr. Stokes, of the Mayo Brothers, recently made a survey and estimated that there were in the City of Chicago, 250,000—a quarter of a million—people suffering from syphilis alone. Now, we talk about crowded rooms and not enough hospital facilities and every state in the Union is spending millions of dollars for the building and maintenance of institutions for the insane and all insane asylums are filled to overflowing and what are we doing? Dr. Rankin, of the American Public Health Association, formerly President and now Secretary of the South Carolina State Board of Health, made a survey, found that 10% of all the inmates of insane asylums were inmates due to syphilis alone—10% due to one cause. That survey was made 40 years ago. He made a survey again last year and wrote it up in one of the issues of this year's *Journal of the American Medical Association* and here are the results of his survey: He stated that the survey made last year showed that instead of 10% of all the inmates of institutions for the insane being there due to syphilis, that last year 25% of all the inmates of insane asylums were there due to syphilis, and that there were as many inmates in insane asylums last year as there were students enrolled in every college and every university of the whole United States combined. In other words, we are rapidly becoming syphilized instead of civilized, and what are our magnificent institutions and hospitals doing for that condition? It is a vital problem with us in the City of Chicago. We are arbitrary in hospitalizing venereal cases where they are spreaders of the disease, but we must take away our cases of scarlet fever and diphtheria and hospitalize those cases in our diphtheria hospitals, because our large institutions are not hospitalizing those cases. Now, I am just giving you that thought to leave with you.

I talked to the President of one of our most prominent hospitals in Chicago, a high-grade man, and I said to him, "Why won't you establish in your institution a place for the treatment of those social diseases where innocent women and children can be brought and why won't you establish a prophylactic station in your institution?" He is a high grade man, one of the prominent public officials and if I should mention his name you would all know who he was. He said, "Oh no, the social diseases are loathsome, filthy diseases and no one but a reprobate or a bum or a disreputable fellow will subject himself to a venereal infection." Now that is

beautiful, that sounds beautiful, but all of us who have been in this work know that that is not a fact. I am convinced that 80% of the young men, through our damnable double standard, are not virtuous when they are married, at the present date.

In Chicago I have taken the position that it is up to the church and the home to keep them good, it is up to the police to keep them straight and it is up to the health department and the hospitals to keep them clean, and on that basis we have tried to make a drive. No hospital in any community is doing its full duty unless it makes provisions to take care of the unfortunates who are venereally infected. It is the great menace to American civilization today. There are in the City of Chicago—and Chicago is just as clean as other cities—tens of thousands of venereally infected people and all I have to do to verify that is to call attention to the number of operations for pus tubes that you have in your hospitals when operations for diseases of the uterus and adnexa are performed. There is the answer. Now why not take it before it gets to that stage? It is an important question. It is vital to me; it is vital to all of you people as hospital people. There are sixty thousand babies born every year in the City of Chicago. Fully 50% of all blindness in childhood and in infancy is due to gonorrhea, and one beautiful, one wonderful thought we have got in the City of Chicago is this, that—thanks to the efficiency of our hospitals and dispensary service—of the sixty thousand babies born last year in the City of Chicago, there was *not one blind baby*.

That is one of the many things that our hospitals in the City of Chicago have done. I should not have injected this social aspect in this if I had not felt so keenly about it. I do wish that I could give to you people who are here today the thought that if you will look at this social evil in a practical way, your hospitals will do something; if you will face this problem frankly to the public and to the people and if you will take the people, some of you, into your own histories—not a pleasant peep to take at times—and see the temptations that you have been through and realize the temptations that our children are going through, I am sure that you will back us up.

That is the whole thought I want to leave with you; if you will go home and talk to your community and put this problem, the problem of the great slaughter of the innocents, before them and establish a venereal ward in every hospital, I am sure you will have done the greatest single thing you can do for your community today.

ETHYLENE AS A GAS ANESTHETIC

BY ARNO B. LUCKHARDT and J. B. CARTER

(From the Hull Physiological Laboratory, the University of Chicago,
and the Presbyterian Hospital, Chicago.)

I—INTRODUCTION

It would be impossible to review with any detail in the limited time at our disposal the several considerations which suggested that we investigate the physiological properties of ethylene gas, especially since we have already done so in a previous publication (*). Nor does time permit us to present you with a detailed account of our experimental work. On the other hand, we ought to allude briefly to the reasons why we studied the properties of this gas, what results were obtained in a study of it on the usual laboratory animals, and how it came about that we investigated its properties on ourselves and other volunteers. That done, we shall give you a very superficial account of its use in surgery as a gas anesthetic.

II—THE INITIAL PROBLEM

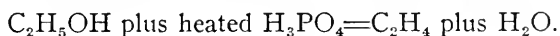
Some 15 years ago Crocker and Knight of the Hull Botanical Laboratory determined that the toxic effect of illuminating gas on flowering carnations was due not so much to its carbon monoxide content as to the ethylene which forms approximately 4% of the gas. Ethylene gas in a concentration of 1:2,000,000 parts of air sufficed to close the open flowers. Other forms of plant life were likewise found by other investigators to be quite sensitive to minute traces of ethylene.

Since ethylene was found to be much more toxic for various plants than a similar concentration of carbon monoxide, it seemed possible that some of the toxic properties seen in man and animals following the inhalation of ordinary illuminating gas, and which had been ascribed to carbon monoxide, might easily have been due to ethylene. Like carbon monoxide, ethylene is an unsaturated compound; and we conceived it possible that, like carbon monoxide, ethylene might through its free valences form a very stable hemoglobin derivative not readily replacable by oxygen. If so, a general asphyxia with rapid death should ensue in any animal which might be made to inhale this gas.

*Luckhardt & Carter: The Physiologic Effects of Ethylene. Jour. Amer. Med. Assoc., March 17, 1923. Vol. 801, pp. 765-770.

III—NATURE OF ETHYLENE AND METHODS OF EXPERIMENTATION

Ethylene is quite readily prepared by allowing very small quantities of ethyl alcohol to interact slowly with very hot sulphuric acid, orthophosphoric acid, or even with kaolin. As a result of this interaction ethyl alcohol loses a molecule of water:—



Chemically, ethylene gas may, therefore, be considered as dehydrated ethyl alcohol. We chose orthophosphoric acid as a decomposing agent for reasons given in our first publication.

Pure ethylene is an inflammable gas, which accounts for its use commercially in welding. It forms, furthermore, with air, an explosive mixture in a concentration of four volumes of ethylene with 96 volumes of air. In concentrations above 14% ethylene and 85% air it is said to be nonexplosive.

Several times in the course of this research we examined blood which had been treated by allowing large quantities of ethylene gas to bubble through it. The spectroscopic examination of such blood failed to reveal any characteristic absorption bands resulting from the possible union of the unsaturated ethylene with the hemoglobin. Blood drawn from a dog under the influence of ethylene showed no deviation from the normal when examined spectroscopically. We, therefore, drew the tentative conclusion that ethylene exists in the blood in a state of physical solution. This conclusion was strengthened by the fact subsequently established that all animals including man rapidly recover from the influence of the gas, even after its prolonged administration. On the other hand, we are well aware of the fact, first noticed on ourselves and later on patients, that the peculiar odor of the gas may be detected in the breath hours after even a short (5-10 minute) period of administration.

The apparent failure of ethylene to combine with hemoglobin or to form with it a characteristic and easily recognizable spectrum did not deter us from studying its probable toxic effects on various animals.

In order to study the various stages of this toxic action in greater detail we chose the frog because of its low basal metabolic rate. Compared with dilutions of 1:2,000,000 as used by Crocker and Knight on flowering carnations, our initial mixtures were quite concentrated. From dilutions of 1:40,000 we passed rapidly up to 1% and then to 10% mixtures, all of which seemed to be far

from toxic, in fact, relatively innocuous, not only for frogs, but even for white rats. When, however, we reached the concentration of 80% ethylene and 20% oxygen we found that our animals became stupefied. But of profound toxicity, and lasting, there could be no question; for such animals promptly recovered on readmission to air without showing any evil after effects during the course of the following week. Not only had they been put to sleep, but when recovering from the administration of the gas, no signs of pain or defensive movements occurred as a result of noxious stimulation. The early experiments indicated clearly that ethylene, far from being toxic for animals, possessed analgesic and anesthetic properties when inhaled in relatively high concentration (Luckhardt and Thompson, 1918).

We proposed, therefore, to study systematically the effects of various concentrations of the gas on frogs, white mice, white rats, guinea pigs, rabbits and kittens. The apparatus was so devised that we could administer ethylene to a given species of animals at the same time, at the same rate, and in the same concentration; partly in order to evaluate the possibly asphyxial effects of ethylene in producing stupor, partly to compare the effects of ethylene at a given concentration with the same concentration of the well known anesthetic, nitrous oxide.

IV—RESULTS OF EXPERIMENTATION WITH THE LOWER ANIMALS

As a result of our experimentation by this method, we concluded that white mice, white rats, guinea pigs, rabbits and kittens could be anesthetized with a 90% ethylene and 10% oxygen mixture in one half the time necessary to anesthetize the same animals with the same percentage of nitrous oxide. Even in lower concentrations, ethylene always proved itself a more powerful depressant than did nitrous oxide.

For the experiments on the dog, a special apparatus was devised, which I will not take time to describe. It was found that after the induction of the anesthesia with pure ethylene in 2-5 minutes, dogs could be kept completely anesthetized on 85-90% mixture, with complete muscular relaxation. If the concentration of gas fell to 80%, there was complete analgesia, but no muscular relaxation. If asphyxia was avoided by the administration of small amounts of oxygen the blood pressure remained unchanged. The respiration was slightly slower. Analgesia was complete, as determined by extensive injuries to the skin by incisions and trauma with hemostats. Such injuries had no reflex effects on the blood pressure or the respiration. One animal was anesthetized, for 45 minutes,

fifteen times during a period of three weeks, with no signs of evil after effects.

V—RESULTS OF EXPERIMENTATION ON MAN

We next investigated the analgesic and anesthetic properties first on ourselves and then on ten volunteers, using a Clark gas apparatus in the administration of the gas. The results obtained strengthened the conclusions arrived at from our animal experimentation and we formulated the following summary on the basis of our experiences with the gas:—

1. Deep surgical anesthesia can be rapidly induced by ethylene without any sense of asphyxia, but, on the contrary, with a sense of well-being and comfort.

2. Analgesia comes on early, apparently long before complete surgical anesthesia is established.

3. At a time when there is complete muscular flaccidity, the pulse rate is slightly decreased, if changed at all; respirations are slow but regular, and the countenance normal in color for the individual, or slightly paler. No cyanosis was ever observed. No subject ever showed any sign even suggestive of asphyxia.

4. The induction of anesthesia was in no way unpleasant except possibly for the first few inhalations of the *concentrated* gas, which induced reflex swallowing. A period of excitement characterized by laughing or forced movement preceded the anesthesia in some. In others, such signs were absent during induction, but were in evidence as the person recovered from the anesthesia.

5. Recovery from the anesthesia was always rapid on withdrawal of the gas mixture. In all, slight weakness and a sense of fatigue was experienced if the person arose from the couch almost immediately on waking up. Vomiting occurred in one case early during recovery. In some, slight epigastric distress was experienced temporarily. In others, a slight nausea persisted for several hours after the administration of the gas. In none was nausea so pronounced or so prolonged as to interfere with the ingestion of the next meal.

VI—ETHYLENE AS A GAS ANESTHETIC IN THE CLINIC

The preliminary experiments were performed on normal, healthy, adult men. Further extension of the work demanded actual operative work in a hospital and on patients requiring surgical interference; for we had gone as far as it was possible to go in a physiological laboratory.

The authors, therefore, arranged for a further demonstration on themselves of the anesthetic properties of a suitable ethylene-oxygen mixture before a group of surgeons, physicians, and professional anesthetists, Dr. Carl Dragstedt administering the gas. Within several days after this demonstration, surgical work with its use was begun (on March 14, 1923) at the Presbyterian Hospital, Chicago. All precautions were taken to give the gas a fair but adequate trial. Used at first in simple and uncomplicated cases, with gratifying results, more extensive and prolonged operations were undertaken, with similar success. Impressed with its many desirable properties, other staff surgeons of the hospital began to use it. From March 14, 1923, to September 1, 1923, some 600 operations were performed. We offer herewith a brief analysis of this clinical and practical aspect of the work, which we recognize as quite superficial and incomplete.

Sex.—The operations were divided about equally between the two sexes.

Age.—The average age of the patients was about forty years. The youngest patient was a girl of six, the oldest a man of 88.

Pre-medication.—None of the patients received morphine as an adjuvant to the anesthetic. In a very few instances morphine had been given for control of pain. This series is, therefore, representative of ethylene anesthesia without pre-medication.

Nature of Operations.—We have grouped the operations as occurring on the head, thorax, abdomen, perineum, or extremities. In addition, ethylene has had some use in obstetrics and dentistry. This is a highly arbitrary system of grouping and not above criticism. It allows, however, of a rapid enumeration of the various types of operations which have been performed.

(a) Head: removal of a wen; excision of a carbuncle, abscess of the jaw; mastoid operation; removal of tonsils; osteomyelitis of jaw with removal of sequestrum; opening of abscesses of neck and in axilla; drainage of cervical abscess; four operations for goitre; extraction of teeth; removal of adenoids.

(b) Thorax: Two excisions of breast tumors; two radical breast removals; skin graft.

(c) Abdomen: Six herniotomies (one a double); three exploratory laparotomies; six appendectomies; operation for undescended testicle; a cystostomy; cholecystectomy; three abdominal Cæsarean sections; two operations for shortening of the ligament of the uterus; hysterectomies; gastroenterotomy; nephrotomy; drainage of subphrenic abscess; ovarian cyst; resection of bladder.

(d) Extremities: Two operations on congenital dislocated hip; bone graft from tibia to radius; reduction of a dislocated shoulder; five operations consisting of the amputation of a toe; operation on fractured and dislocated ankle; manipulation of shoulder for breaking up of adhesions; aspiration of a knee joint; osteomyelitis of tibia; osteomyelitis of femur (3 operations); stretching of the sciatic nerve; bilateral amputation of both thighs, osteomyelitis of ileum; removal of a sequestrum from the tibia; two operations for bunions; two operations on varicose veins; an astragalectomy operation on a double fracture of leg and dislocation at ankle of six months' duration; amputation of leg below the knee.

(e) Obstetrics: Ethylene was used in many normal deliveries with very satisfactory results. It was found better than nitrous oxide used the preceding hour or hours. An 80% concentration was employed. The color of the patient remained good. Fetal heart tones remained unchanged.

(f) Perineum: Dilation of cervix and curettage (9); 2 radium needles into cervix uteri; pelvic examination; double rectal fistula; many prostatectomies; two operation for removal of hemorrhoids; cystoscopy; five operation in which radium needles were introduced into the prostate; urethral catheterization; anal fissure; vaginal cæsarean; perineal incision prior to delivery and subsequent repair; insertion of Voorhees bag, amputation of cervix uteri, colpotomy; incision of pelvic abscess; circumcision; repair of vesicovaginal fistula; manual exploration of uterus; perineorrhaphy.

Dentistry.—I personally know of two dentists who use ethylene anesthesia exclusively in their dispensary work as well as in their private practice. Together they have used it in several hundred cases. I had the privilege of observing its use in the extraction of teeth. In the course of two hours I witnessed the extraction of some 50-60 teeth. Both operators were delighted with its rapid action, absence of excitement, more complete relaxation, pink coloration and the rapid recovery of the patients without after effects. Both feel that it is infinitely better than nitrous oxide.

Concentration of Ethylene Used.—The average concentration of ethylene used for a given operation varies not only with patient, but also with the nature of the operation. Whereas a 77-80% ethylene and a 23-20% oxygen mixture sufficed to render some patients analgesic or even anesthetic, others were not in a state of surgical anesthesia unless the ethylene was given in a concentration of 90% or even 95%. But even a 90% concentration allows of the administration of 10% oxygen—an amount of oxygen quite sufficient to maintain perfect oxygenation.

Duration of the Operation.—The length of the operations varied considerably—from a few minutes to 3 hours and 10 minutes. The average length of 92 operations was 27.8 minutes.

Recovery from the Anesthetic.—In the entire series of 92 cases where ethylene was the sole anesthetic used, we find no record that the patient had not recovered his senses within five minutes after the discontinuance of the anesthetic, irrespective of the length of anesthesia. Following the shorter operations, recovery was almost immediate. But even after very long operations the patients were usually quite rational within three minutes after ceasing to breathe the ethylene-oxygen mixture.

Nausca and Vomiting.—About 16% of the patients vomited on awakening. The retching or vomiting was of short duration, occurring when the patient was but lightly anesthetized, or for a very brief time immediately on recovery from the anesthetic. It consisted very often of a few retching movements and was never serious.

Gas Pains.—A striking feature of this larger series of cases is the absence of gas pains.

Evaluation by the Surgeon.—Nineteen surgeons, operating with ethylene as the anesthetic agent, have made this preliminary study possible. (1).^{*} Their verdict was not only that the gas was "good" or "very satisfactory," but that it produced in a given type of operation or manipulation a decidedly better relaxation than was possible with nitrous oxide. Upper or lower respiratory infections were not brought on by its administration nor were such, when existent at the time of operation, made worse.

Opinion of the Anesthetists.—The administration of ethylene was almost exclusively in the hands of Drs. Isabella Herb and Mary Lyons. Whether used to induce anesthesia in a thylene-ether sequence (300) or as the sole anesthetic agent, these well known anesthetists felt very well satisfied with it, as the following quotations, culled from protocols of various patients, will prove:—

"Unable to hold under N_2O in similar operation. Better relaxation than with N_2O " (Herb).

"Sequence easier than with N_2O ." (Herb).

"Much better than N_2O . Patient given N_2O several times before—always unsatisfactory." (Herb).

^{*}They are, with the number of operations performed by each in parentheses: Dr. D. D. Lewis (29); Dr. A. D. Bevan (16); Dr. N. S. Heaney (12); Dr. D. B. Phemister (11); Dr. H. Kretchmer (11); Dr. McWhorter (3); Dr. E. D. Allen (3); Dr. Gallagher (3); Dr. Montgomery (4); Dr. Gatewood (1); Dr. C. B. Davis (2); Dr. E. Miller (2); Dr. Moorhead (2); Dr. McGinnis (1); Dr. Everett (1); Dr. K. Speed (1); Dr. C. Culbertson (1); Dr. Shambaugh (1); Dr. V. David (2).

"Have given him six anesthetics before, always with excitement. None this time." (Herb.)

"Quieter induction." (Lyons.)

"Very satisfactory." (Lyons.)

"Patient with hemoglobin of 35 per cent. This type does poorly under N_2O . Used ethylene with complete relaxation." (Lyons.)

"Less bleeding. No cyanosis." (Lyons.)

"More satisfactory than N_2O ." (Herb.)

"Perfect relaxation. Excellent color." (Gaston.)

Opinion of the Patients.—Many volunteers for the preliminary work and some patients stated that ethylene was the best anesthetic they had ever had.

In our first publication we mentioned the possible advantages of ethylene over nitrous oxide. These advantages were surmises based solely on experiments with normal animals and healthy men. Each of these predictions was verified when put to the test in the clinic. For purposes of emphasis and as a partial resume we repeat them here:

"1. Anesthesia may be maintained

- (a) In the absence of all signs of asphyxia,
- (b) In the absence of effects on blood pressure,
- (c) In the absence of dyspnea,
- (d) With complete muscular relaxation.

2. It may be used in obstetrics, a state of complete analgesia being possible at a concentration of 80 per cent or lower, ethylene.

3. There is rapid recovery after long continued administration, without evidence of after effects."

Failures.—We frankly admit, however, two failures. In one the failure was complete, a concentration of 90-95 per cent producing in this young man marked cyanosis without the slightest relaxation. The other patient was rendered analgesic by a 95 per cent ethylene-oxygen mixture but was never profoundly anesthetized. At a subsequent operation under apparently identical conditions (except for the nature of the operation) surgical anesthesia was induced together with complete muscular relaxation.

Such refractory cases are known to occur occasionally with nitrous oxide. In the past, no attempts have been made to determine why some patients are refractory to nitrous oxide, or even to ether anesthesia. It seems to us that a group of such cases should receive a most careful study by all available means, with the hope that such a study might possibly furnish evidence as to the mechanism of anesthesia.

VII. DISCUSSION AND WARNING

On the basis of this clinical study, comprising a series of some 700 patients with and without cardiovascular, renal, and other complications, we can state briefly that ethylene-oxygen anesthesia is very satisfactory. Since it is possible to administer with the ethylene on the average as much as 16-18 per cent oxygen, asphyxia and its consequences are avoided and cyanosis (so commonly seen with nitrous oxide) is conspicuously absent. Analgesia comes on surprisingly early. Considering, furthermore, that the relaxation is more complete than with nitrous oxide, we find that ethylene compares most favorably with ether. In fact, the impression is gaining ground that ethylene has some of the advantages of ether, without many of its troublesome after effects. The very prompt recovery points to a rapid elimination of the ethylene, and may necessitate the administration of morphine immediately on the conclusion of an operation for the control of pain.

In conclusion, we append a note of warning to those who contemplate using it in the clinic. Ethylene gas is inflammable. It forms, moreover, with air (or oxygen) an explosive mixture in a concentration of four volumes of ethylene with 96 volumes of air. Until further work (now in progress) has been performed on its explosive properties, we warn surgeons and anesthetists *not to use the gas in the presence of an electric spark or a free flame, or electric cautery.*

Satisfied that under proper conditions of administration ethylene gas not only produces in all individuals analgesia, but also in most patients, a state of surgical anesthesia incomparably better than nitrous oxide for any kind of surgical work, we offer the gas to the medical profession for further trial in the clinic.

VIII. SUMMARY

We feel that others who use it will be impressed with the rapidity and ease with which anesthesia is induced, with the slow and regular respiration, with the dryness and warmth of the skin, with general pink coloration of the skin and viscera, with the slow and regular pulse; with the absence of salivation; with the absence of blood pressure changes during or following considerable trauma and manipulation; with the complete muscular relaxation; with the remarkably rapid recovery without serious sequelæ after even a prolonged anesthetization.

In the meantime we are continuing our investigations in the laboratory and clinic on various aspects which are of immediate importance.

In conclusion we extend our sincerest thanks to the Presbyterian Hospital of Chicago, and most particularly to the many surgeons, and the two anesthetists, Dr. Isabella Herb and Dr. Mary Lyons, whose enthusiasm for and confidence in ethylene made it possible to present you with this brief account of its merits.

PRESIDENT BACON: We are indebted to Dr. Luckhardt for giving us this interesting paper. There are a great many things the superintendent would like to know about ethylene. I have heard so many say that it is too expensive. Some say it is too explosive, etc. I am going to ask Dr. Isabella Herb, who has administered ethylene to a larger number of cases than any one person I know of, to come to the platform and discuss Dr. Luckhardt's paper.

DR. ISABELLA C. HERB: Mr. Bacon has asked me to discuss the clinical or practical side of ethylene anesthesia. As Dr. Luckhardt has told you, he and his co-workers proved through experiments on the lower animals and on man that ethylene was non-toxic and possessed anesthetic properties. As these investigators had carried the work as far as was possible in a physiological laboratory and knowing that further knowledge demanded operative work on patients while under its influence they accordingly, on March 11th, 1923, made several demonstrations before a group of surgeons and anesthetists. These demonstrations were so convincing that a supply of ethylene was ordered sent to the Presbyterian Hospital and on the following Wednesday, March 14, 1923, before the Chicago Surgical Society, Dr. Arthur Dean Bevan operated on three patients to whom I administered ethylene and oxygen. The first patient, a large muscular man 48 years of age, was operated on for the removal of a sebaceous cyst of the scalp, the second operation was for an anal fistula in a 29 year old man and the third patient, 23 years of age, was operated on for an inguinal hernia. These were the first operations performed under ethylene-oxygen anesthesia. To date 957 operations have been performed. This does not include the anesthetics in which it was used as a preliminary to ether anesthesia nor the anesthetics in which ether was added for varying periods (5 to 15 min.) of time during the operation.

As we were the pioneers in the administration of ethylene it may well be imagined that we approached our problem with the greatest caution, consequently during our early work the patients were selected with care and only those requiring minor operations and in a fair state of health were chosen, but as we became familiar with the method of administration and the signs of anesthesia and the effect on the respiration and on the circulation we extended

its use to major surgery until today we are employing it for every kind of operation. By this I do not wish to be understood that we are using it to the exclusion of all other general anesthetic agents, for there are certain operations, particularly in the upper abdomen, for which I prefer ether or a combination of ethylene-oxygen and ether. Satisfactory results have been obtained in labor, in delivery and in Cæsarean section. Because of the large percentage of oxygen which can be combined with the ethylene the necessity for the resuscitation of the child does not occur so frequently as it does with other general anesthetic agents.

Age, sex and previous habits (alcoholism, morphinism) did not seem to influence either the induction, maintenance or recovery. The youngest patient was four years (congenital hip dislocation) and the eldest was eighty-eight years (insertion of radium in carcinomatous prostate). The shortest anesthesia was four minutes and the longest was three hours and ten minutes (very extensive bone transplant). The latter patient was fully awake in five minutes and got off the cart into bed without assistance, although his leg and a part of his body were in a cast, and two hours after the operation he ate his supper and relished it. Good relaxation was obtained for a suprapubic prostatectomy in a patient weighing 258 pounds. In our series were patients suffering with myocarditis, auricular fibrillations, severe valvular lesions, aneurism of the aorta, marked arteriosclerosis with high blood pressure, diabetes, acute and chronic respiratory infections, emphysema, various kidney infections and acute and chronic nephritis. Two of the diabetics had two and three amputations for gangrene. None of these patients were unfavorably affected by the ethylene anesthesia. No change was observed in the urinary findings, blood chemistry or blood pressure in the limited number of cases in which they were studied. It was noted that vomiting varied with different cylinders of ethylene. This was true both with fasting patients and those who had eaten their regular meals. As each cylinder had a different odor and vomiting occurred more frequently with some cylinders than with others, we concluded, inasmuch as pure ethylene is nearly odorless, that it was the impurities which were responsible for the odor and the vomiting. It was noted that the percentage of oxygen which could be administered with the ethylene varied with different patients regardless of the operative manipulation. Not infrequently a thin nervous patient required a higher percentage of ethylene than a strong, robust individual. Deep surgical anesthesia can be induced without asphyxial manifestations. When surgical anesthesia is established and a clear airway is maintained the color is normal for the individual or slightly increased. Cyanosis

does not develop unless there is obstructed breathing or the percentage of oxygen has been reduced more than is necessary. The exception to this rule is in very florid individuals, particularly when they are placed in the Trendelenburg position. As the explosiveness and the inflammability of ethylene have not as yet been definitely determined we have been cautious in its employment in the presence of an open flame, actual cautery or an electric spark; however, we have administered it when the cautery was used for hemorrhoidal operations, also for the fulguration of bladder tumors and when diathermy was used for bladder carcinoma. Luckhardt is of the opinion that it is not more inflammable than ether and that with certain precautions there is little danger. He states that it forms with air or oxygen an explosive mixture in a concentration of four volumes of ethylene with 96 volumes of air. This would suggest that there would be less danger in a large well ventilated operating room than in a small room to which little or no fresh air was admitted.

I have been asked about the gas machine. I will say that any gas machine which will deliver nitrous oxide will deliver ethylene. I think perhaps a tank of ethylene goes further than a tank of nitrous oxide. However, the personal equation and the machine you use enter so largely into that, that one cannot make positive statements; some anesthetists waste a lot of gas or a lot of ether, and so do some machines waste a lot of ethylene or a lot of nitrous oxide. Dr. Luckhardt has so thoroughly covered the field that I do not know that I can add anything more.

DR. MOUCH: How does ethylene produce anesthesia?

DR. HERB: I do not know, but perhaps by removing the oxygen from the blood, the same as nitrous oxide.

A MEMBER: I would like to know how large was the number of obstetrical cases in which this was used?

DR. HERB: I cannot tell the exact number, I can only tell the results. Dr. Heaney, the head of our obstetrical department, tells us that he likes it very much better than nitrous oxide; he seldom has to resuscitate the babies, they are pink when they are born, and when he wants to do repair work the ethylene administration is continued.

A MEMBER: How about the intern?

DR. HERB: Anyone who can administer nitrous oxide, can administer ethylene.

A MEMBER: How about using machines that have been used with nitrous oxide just before that? Does it have any effect? Nitrous oxide today and ethylene tomorrow?

DR. HERB: Well, the odor does cling more or less to the rubber of the machines, but you can to some degree blow it out with oxygen before you start the nitrous oxide anesthesia; the patients do not complain of it. Somebody has started a lot of propaganda saying that if you use ethylene in the machine, the machine would have to be sent back to the factory and all cleaned out and done over and that sort of thing. Well, they say that "fools rush in where angels fear to tread," and I never thought of such a thing. I just used one or the other as I happened to want to when I began to use ethylene and we never had any bad results, so I would say that the same machine can be used for both gases.

A MEMBER: That propaganda was started by the nitrous people themselves?

DR. HERB: Absolutely, because they do not want to be put out of commission, so to speak; they have the gas plants and they want to supply the profession with nitrous oxide and not with ethylene. I understand all that perfectly.

A MEMBER: There have been a few deaths, haven't there?

DR. HERB: I only know of one and that patient had been given morphine before the anesthesia. Water will kill if you get enough of it, and so will ether or any other anesthetic agent; it is the case of the man behind the gun.

⁴ A MEMBER: Do you consider it safe?

DR. HERB: Yes, so is water safe if you don't get too much of it; but it is true you can kill a patient with ethylene, I do not deny that at all, but that is the fault of the anesthetist, not the fault of the ethylene; there is nothing in ethylene itself that will kill, it is the way it is administered.

DR. LUCKHARDT: Because of my natural interest in this matter, I have decided to preach to you just one minute. As the discoverer, with Mr. Clark and Mr. Thompson, of the anesthetizing properties of this gas, I will take the liberty of making a few remarks on two points. First, you will note that this gas, as a practical anesthetic agent in the thousand cases at the Presbyterian

Hospital now, and in many hospitals throughout this country, was discovered as a result of an investigation of a problem which practical people would designate purely academic and devoid of practical interest. Don't forget the point we set out to determine, namely, the toxicity of ethylene for animals. As a result of a study of a purely academic problem we have now a practical anesthetic agent. Moral—don't berate and belittle scientific investigators in any field solely because they are interested in what appears to you to be, and for the moment perhaps is, a problem devoid of practical significance. You can never tell when the academic problem of today will be a practical problem of tomorrow. Second, how would the discussion of this anesthetic be before you tonight, or the gas be in use in hospitals, if vivisection were not allowed? Would those people who are vivisectionists, when it comes to the point that they get an acute abdominal disease and must be operated on to save their lives—would they want to test out a new anesthetic on themselves first? One must make use of lower animals first. Who would have been foolhardy enough, as Mr. Carter and I seemed to be in January last, when quietly we came one Sunday morning to test this gas out on ourselves—who would have been foolhardy enough to try this mixture on himself if he had not previously tried it out on lower animals—a perfectly legitimate use of lower animals—and then extended the problem to man? So I call your attention to this second point likewise, and if you ever have occasion to talk with an anti-vivisectionist, please remember what practical use this gas has so far received. I think of it as a practical outcome of a problem in the laboratory and in a state where vivisection was allowed for the benefit of humanity, a thing that is always denied by our anti-vivisectionists who say that nothing of use to humanity has ever come out as a result of vivisection on animals.

HOW TO TEACH THE VALUE OF SUPPLIES AND EQUIPMENT TO THE HOSPITAL PERSONNEL

By Charles Sidney Pitcher, Superintendent, Presbyterian Hospital of Philadelphia, Philadelphia, Pa.

1. The best way to prepare to teach the value of supplies and equipment is by learning the value of supplies and equipment yourself.

AMERICAN HOSPITAL ASSOCIATION

2. By setting a good example yourself in the use of supplies and equipment.
3. By selecting a personnel which is teachable.
4. By reiteration, reiteration and demonstration without irritation.
5. Conclusion.

No. 1

A rapid and accurate method of learning the value of supplies and equipment is to examine the expenditures for operating your hospital.

The expenditures will vary from year to year but a good insight may be obtained through the consideration of the cost of each department in its relation to the total expenditures for all departments.

The following is an illustration of the expenditures for all the departments of a hospital:

Administration	1.58%	per annum
Professional care of Patients....	5.30%	per annum
Pharmacy	1.79%	per annum
Pathological Laboratory.....	0.68%	per annum
X-Ray Department.....	0.79%	per annum
Out-Patient Department.....	0.64%	per annum
Training School.....	0.41%	per annum
Housekeeping	4.51%	per annum
Provisions	24.51%	per annum
Laundry	0.80%	per annum
Power Plant (heating and lighting)	6.26%	per annum
General House and Property (in-		
cluding repairs).....	15.12%	per annum
Ambulance	0.78%	per annum
Social Service Department.....	0.22%	per annum
	<hr/>	
	63.39%	per annum

In this set-up the regular salaries and wages are 36.61%, which does not include payments for extra labor amounting to 5.09% which were made for repairs under the classification "General House and Property."

The expenditures for regular salaries and wages usually average from 40% to 50% and sometimes more.

I have noticed in examining the annual expenditures of general hospitals that hospitals having high salary and wage expenditures frequently have a corresponding low cost for supplies.

This would indicate it is economy to employ capable people at a fair rate of pay.

A study of the set-up shows the largest expenditures were for:

Provisions	24.51% per annum
General House and Property (in-	
cluding repairs).....	15.12% per annum
Power Plant (heating and lighting)	6.26% per annum
Professional care of Patients.....	5.30% per annum
Housekeeping	4.51% per annum

Provisions, the greatest expenditure of all, are usually handled by the lowest paid and least experienced of the personnel; beginning with a low paid, inexperienced storeroom force, followed by a low paid, inexperienced kitchen group and ending by being served, to a large extent, by inexperienced and untrained ward maids, and pupil nurses.

Under these conditions should we wonder why the provisions are slaughtered and wasted?

Supplies and equipment used for general house and property purposes, if placed in the hands of an underpaid, inexperienced and untaught personnel, meet the same fate as the provisions.

These two classifications (Provisions and General House and Property—including repairs) alone cover nearly 40% of the expenditures of a hospital.

All other supplies and equipment are liable to the same destruction and waste when handled by an untaught personnel.

No. 2

Superintendents and heads of departments should set a good example in their personal use of supplies and equipment. They should not be like the preacher who, on being taken to task by his good wife, for not practicing in his every-day life what he preached in the pulpit, replied: "Why, mother! How can I do this? I have to preach for the whole community."

Superintendents, medical directors, directors and all the other dignitaries and executives of a hospital community should be shining examples for the other members of the community to follow in the careful, economical and proper use of supplies and equipment.

No. 3

Advice is said to be something everyone is willing to give but no one is willing to take.

In selecting our personnel we should try to secure those who are willing to take advice, in other words, persons who are teachable.

During the World War, Spanish-American War and at other times when the public mind has been overwrought, those of us who can recall these times will also recall that newspaper writers and cartoonists poked a lot of fun at what they termed "Home Strategy Boards," usually depicting a group of farmers gathered around a stove in a country store chewing or smoking tobacco and expectorating at a box of sawdust, while they engaged in the indoor sport of discussing how a certain battle should have been fought or how to run the government in general.

Don't think for one instant the "Home Strategy Board" is only found in country districts, for it is active in clubs, hospitals, and all places where two or more are gathered together.

Each group of hospital workers usually has one or more of these "Home Strategy Boards," who are certain in their own minds that they know more than the trustees, superintendent, or anyone else, how the institution should be conducted.

In certain instances, no doubt, they may be correct in their opinion. No one has a corner on brains, and everyone who has brains enough to be worth mentioning will think about something.

Our job is to select a personnel who will use their brains to think about right things.

Please consider carefully what a force for good will be set at work by directing the minds of these "Home Strategy Boards" in right channels of thought, through posters, hospital publications and other literature bearing on their work.

It is highly desirable to give your personnel a proper perspective of the duty they owe the hospital and the duty which the hospital should fulfill to the public; it was created to serve.

No. 4

I wish I were capable of telling you "How to Teach the Value of Supplies and Equipment to the Hospital Personnel." If I could do this I would be solving one of the greatest problems which confront each decade of hospital executives.

May I offer some suggestions for your consideration?

If you are capable and have the time, teach the personnel yourself; if you are not, secure the services of those who have the

experience and knowledge and who have the ability and desire to teach others.

The United States Food Administration demonstrated that it is possible to teach large groups of persons to save without detriment to individual or public health.

Thrift campaigns demonstrate this fact.

The use of inspirational posters, mottoes and instructive reading matter are largely employed to develop a proper frame of mind in the public, as well as the services of public speakers.

We are all familiar with the posters and publications of the Food Administration which saved such vast quantities of wheat, meat, fat and sugar for war purposes.

"The more we save over here the more we serve 'over there,'" was one of the telling slogans. This slogan was to inspire us to save to win the war.

We can employ the same idea in teaching the hospital personnel the value of supplies and equipment.

How did the Food Administration find out what would have the strongest appeal to the public? The method employed was both direct and simple. A conference was called of the different groups representing the Food Administration, what it was desired to accomplish was freely discussed, committees were appointed and everyone went to work with the understanding that he would report to the conference at a given hour on a certain date. When this time arrived the conferees assembled and the work of the committees was considered.

The representative of the advertising section would present posters. The most effective poster for a certain purpose was determined by a majority vote of the conferees.

Circulars of information and inspirational literature were selected in the same manner.

Some may think this was all right for the Food Administration, but can the plan be applied to a hospital?

Let us consider this phase of the matter.

The rank and file of a hospital is usually well meaning and honest, but inexperienced.

The majority of a hospital personnel, in order to secure promotion, is willing to become proficient in their work.

Few persons think of the things in daily use in their relation to dollars and cents.

Persons to be thrifty must be taught thrift, the same as to eat or walk.

Saving is a state of mind, and a person to save must have some reason which gives him the impulse to save.

In individual saving, which in a hospital results in group saving, there must be one central object to impel the group to save.

More can be accomplished through creating the desire to save and directing this desire in proper channels, than by arbitrarily reducing the requisitions for supplies and equipment without just warrant for so doing.

Arbitrarily cutting down requisitions for supplies, without a sufficient study of the needs of an institution and the proper training of the persons using the supplies, is liable to result in deprivation. It is dangerous to arbitrarily reduce requisitions unless the hospital, after careful study, has established standards for the use of supplies, that is, lists giving the maximum of the different articles that will be furnished for a certain number of persons. These issuing lists or standards may be established through the experience at the hospital, combined with the experience of other hospitals.

How we use supplies is more important than how we purchase them. You may have the most refined and well worked out system of buying to save the last penny possible in this direction, but the institution may still be wasteful and lax in the use of things.

The amount saved by the most efficient purchasing system, when compared with the average purchasing conditions, will not exceed 5 to 10 per cent, while a proper regulation of the use of supplies may easily secure a saving of from 15 to 30 per cent.

The saving effected through the regulation of the use of supplies has been very marked, where careful attention has been given to the matter.

If we can impress upon our hospital personnel this idea of making things last longer, making supplies go further, and general carefulness in the use of hospital property, we will have gone a long way in solving the high cost of operating a hospital.

In 1921 we conceived the idea of a thrift poster to promote economies in our hospital. This thrift poster has received considerable publicity and notice. It was described in *Hospital Management* for October, 1921, pages 26 and 27; and in *The Trained Nurse and Hospital Review*, page 321, issue for April, 1922. This publication adapted a one page bulletin of their own from the poster, which they designated: "Ten Commandments of Hospital Economy."

Two hospitals have requested permission to utilize the reading matter of this poster in thrift campaigns which they instituted. Several hospitals have requested that copies of the poster be mailed to them, and the Department of Welfare of Pennsylvania utilized the poster in their suggestions for economy in the State owned institutions.

The poster has created so much interest that I venture to describe it at some length.

The purpose of the poster is to impress persons with the idea to save money not simply for the sake of saving money but so that the money saved may be used in the construction of new buildings, which is the objective of the board of trustees, the medical staff, the superintendent and all other persons connected with the hospital.

The poster was prepared by the superintendent, assisted by members of the board of trustees, medical staff, ladies' aid society, the directress of nurses, the housekeeper, the chief engineer, and other heads of departments. The poster represents the thought and experience of many persons.

To emphasize the idea of saving and how savings may be accomplished, the poster was placed in frames about the institution, preferably beside telephones or other places where one is liable to wait, and would, therefore, have time to read the poster.

The poster was also distributed to all persons on the pay roll at the time of receiving their pay, and extra copies were supplied to heads of departments for distribution to new employees.

To emphasize the idea of making use of things which were already on hand, the poster was placed in frames which had been used for discontinued notices.

The main idea of the poster is to get everyone headed in the same direction, i. e.—To Save Money to Construct the New Hospital Buildings.

The poster is 16 inches wide and 12 inches high. It is divided into two sections, left and right, "*Save Money to Construct the New Hospital Buildings*" is printed in bold type at the top of the left half, which contains the following twenty-six suggestions for economy:

1. Cordial cooperation in and between departments is essential.
2. Physicians, chiefs, assistants and residents, as well as nurses and employees, are requested to bring about the economic use of drugs, dressings, appliances and surgical supplies, as well as all food supplies.
3. *DO NOT* use an appliance or a surgical instrument, except for the purpose for which it is intended.
4. Save the wornout article or the broken, in order to obtain a new one on requisition.
5. It is sometimes alleged that hospitals are wasteful and extravagant. Help to avoid such criticism.
6. Do not light an electric lamp or gas when not necessary.

To do otherwise is wasting money. If you find an unnecessary light burning, turn it off. All lights not actually needed should be extinguished by 9 p. m.

7. Do not fill ice-water pitchers full of ice. Use $\frac{1}{3}$ ice and $\frac{2}{3}$ water. A very large saving in money will result from this practice.

8. Keep ice chest and refrigerator doors closed.

9. Turn off hot and cold water faucets. Water costs money.

10. Turn off steam from radiators, when heat is not needed. This will save coal.

11. Blank forms cost money. Do not use them for purposes for which they were not intended.

12. Old rubber is valuable. Do not throw any away. Keep rubber in cool place. Do not allow any form of grease on rubber, as it causes it to rot.

13. When you have time, do not take the elevator to go up or down one or two flights of stairs.

14. Kindly cooperate in the economical use of linen.

15. China is very expensive. Observe the utmost care in handling.

16. Lack of care in the use of food supplies wastes money. Order only what is needed, and return all unserved food to the kitchen.

17. Before making requisitions, assure yourself that it is ABSOLUTELY necessary.

18. Each ward or department should keep an accurate account of all supplies.

19. Supplies are not to be taken from the hospital.

20. Physicians, nurses and others are requested to practice the utmost economy in the use of gauze, cotton, bandages, etc.

21. Loss of time is wasteful and extravagant. For instance: Late on duty often causes confusion and dissatisfaction. Late at meals not only means delay in going on duty, but extra work in the dietary service and other departments.

22. Handle all hospital property and equipment with the same care you would if you had paid for them with your own money. Our repair bills are enormous.

23. Requests for repairs should be made by the head of the department on blanks provided for that purpose and sent to the superintendent's office.

24. When we all unite in small economies, it will produce a large economy for the hospital as a whole.

25. The use we make of our present facilities will, to a large extent, determine how soon we can construct the new buildings.

26. The hospital has been carefully operated in the past. Let us emulate our predecessors in keeping our institution in the forefront of the hospital world. To do this we must be careful in our use of all material, equipment, food and other supplies.

The right half is a price list of a number of articles used by the hospital grouped under various classifications. "*Save! So the Hospital May Go Forward*" is printed in large type at the bottom of this half.

Some of the pleasing results of the poster are the following:

Some of the personnel are suggesting how to save, others are telling how they are saving in their work.

A statement of one of the colored orderlies to the superintendent a few days after the poster was distributed, while he was watching him fill an ice chest, is a fair example of the reaction caused by the use of the poster: "I shur don't fill dis ice chest full any mo' so de cover don't shut." He was thinking of suggestion No. 8 of the poster—"Keep ice chest and refrigerator doors closed."

It is noticed that heads of departments, in making requests for equipment or changes in construction, more frequently present the matter from the standpoint of effecting an economy than formerly. That is, the improvement will ultimately produce a saving of money. To illustrate, one head of a department recommended a certain change and stated that through the change economy would be effected in a certain direction in which the hospital was wasteful.

When we consider how long it is possible for equipment to last, one has but to recall that his or her mother has a sugar box or a tea canister or other things that have been in use since one is able to remember, even though he is now in middle life. I have seen old-time household utensils on exhibition in a museum of which duplicates of equal age are still in use in households of rural communities.

We have a wheel chair at our institution which is entitled to special notice. The plate giving the name of the donor and other information indicates that the chair was donated to the hospital in 1900. During the past three years, the chair has been in our shop twice for slight repairs. I sometimes wonder if the chair may not be like the old lady's stockings which she said she had worn for twenty years—stating that one year she footed them and the next year she knit new legs. Whatever may be the case, the chair is in good condition, and, due to a recent fresh coat of paint, is as youthful in appearance as some of the younger chairs.

Blue-prints or printed instructions for the care and use of equipment, either placed on the equipment or framed and hung in

a conspicuous place, are two of the best ways to be sure that the apparatus will be properly operated and cared for.

The burning of unnecessary electric lights is a common practice, especially when one is not paying out of their own pocket for the current used. A simple means to minimize this expensive and careless habit is to place signs on the panel boards and near the electric light switches. Small ready-made signs reading "Please turn out the lights when not in use" may be purchased for fifteen cents each. These signs will save a lot of electric current.

Similar signs will secure other economies:

"Keep ice chest and refrigerator doors closed."

"Turn off hot and cold water faucets."

"Turn off steam from radiators when heat is not needed."

(The majority of people don't do this, but open the window.)

Business firms, factories and hotels utilize signs of this nature quite extensively.

Business houses use inspirational signs to encourage their personnel. Here is one I copied in a wholesale optical place, manufacturing the product it sells—"When it is finally settled that a thing is *impossible*—watch some fellow do it." This motto is from another place, "Not until primitive man began to investigate, did he begin to climb the ladder of fame."

The walls of many offices and public places for the sale of goods are adorned with similar mottoes.

The personnel of a hospital changes so frequently that printed books of rules and instructions do not secure as good results as tersely worded signs which tell what should be done.

The personnel will read signs out of curiosity if for no other reason, but they will not read rule books of their own volition.

In teaching the hospital personnel, the great educational value of hospital association meetings or other meetings where groups of hospital workers are present should not be overlooked and the personnel should be encouraged to attend such gatherings.

The presentation of papers and the discussions are often of less value than the personal discussions one has an opportunity to have through conversing with other hospital workers at meetings of this kind.

One of the readiest and best means of teaching the personnel is to have the heads of departments visit other institutions. These visitations should not be hit or miss, but when one hears of certain institutions doing something worth while, it is of a decided advantage to other institutions to send representatives there to learn how the results are obtained.

Some executives consider it is bad policy to furnish heads of departments with catalogs and other literature describing equipment, new devices or new products, for fear that these will stimulate them to ask for equipment or supplies for which they would otherwise not think of asking. I have listened to a number of discussions pro and con concerning this subject. My belief is that heads of departments should have a complete set of catalogs of items pertaining to their department and should be required when making requests to give catalog, page and number, with specific reasons why they consider the article requisitioned the most suitable as well as the reason for their wanting it.

We all receive letters, circulars of information and other literature describing new equipment and supplies that have been recently developed and which some enthusiastic sales manager or advertising man would lead us to believe is the best thing ever produced of its kind. Instead of throwing these into the waste paper basket I find it is profitable to send them to the heads of departments, and, if they contain information which I wish to retain in my office, to send for additional copies.

The value of this seemingly objectionable mail matter is, that in the grist of miscellaneous catalogs and circulars is a lot of good ideas which will not appear in the regular catalogs for six months or a year.

I have not found that it caused heads of departments to ask for unnecessary articles, if they were supplied with catalogs and circulars of information and other things bearing on their work.

On the other hand, I find it is a decided advantage, for it develops a type of person that know their jobs and what is in the mind of other people concerning the work. It also prevents them from asking for obsolete or bad types of equipment, due to the fact that they have had an opportunity to learn what is available in the market.

The advertising matter contained in our hospital publications is useful from an educational standpoint. I believe it is of value for hospitals to subscribe to trade papers for the heads of their departments, and it is without question a very short-sighted policy, indeed, for hospitals not to make a practice of securing hospital publications for the personnel to read.

Courses in correspondence schools, night schools, and university extension departments develop some of our best and most practical workers.

No. 5

The greatest result we may expect to accomplish cannot be measured by pedagogic standards, for there are too many cross currents of thought, personal interest and desires involved.

We must fix in the mind of our personnel permanent objectives which will appeal to their imagination and at the same time give them a feeling of personal responsibility and pride in their work. This may be done by reiteration, reiteration and demonstration without irritation, which is the best method to employ in teaching.

Three good objectives are the following:

1. To secure a dollar's worth of value for every dollar spent.
2. To make everything go as far as possible.
3. To make everyone feel that the success of the hospital depends on the proper discharge of their duty, or, I may say, obligation to the hospital.

People are too prone to think of what the hospital owes them rather than what they owe the hospital.

We must create a desire in the personnel to learn how, and after learning how to do a thing, to do it for the pleasure of doing it.

There are few greater pleasures than the pleasure derived through accomplishment.

It is necessary to create a oneness of mind. May I illustrate this oneness of mind by an illustration which we all understand, especially the members of our association who are married?

A young man and young woman decide to marry; they have little money. In arranging the prospective family budget they agree that two can live together as cheaply as one can live separately, and there are arguments which may be advanced to prove this idea, although in the main it is faulty, as has been found out by those who have tried it.

They both put their shoulder to the wheel. There is a oneness of mind, the desire to make the new home succeed, and it does succeed.

How? Through hard work, careful planning and cooperation.

My idea of conducting a hospital is for everyone to be on the alert to find new methods or ideas which may be used to improve the service rendered by the hospital, as the young people will strain every nerve and muscle and deny themselves pleasures that they may have the greater pleasure of establishing a home.

Sooner or later every man discovers the astonishing fact that the only way to do a thing is to do it.

Hospital Library and Service Bureau of the American Conference on Hospital Service

A report made to the American Hospital Association by invitation. By Donelda R. Hamlin, Director, Chicago

A statement covering the work of the HOSPITAL LIBRARY AND SERVICE BUREAU would be incomplete without a reference being made to the participation of the American Hospital Association in its establishment and development. Because of the Association being a part owner of the Library it has had a large share in determining the activities and policies of the Library. This ownership is not by right of purchase but by reason of the Association being a member of the American Conference on Hospital Service which is comprised of seventeen national associations having in common the betterment of hospital service. These associations banded together in the American Conference on Hospital Service, chartered by the State of Illinois as a corporation not for profit, own and control the Library and direct its activities.

Financial support covering the demonstration period of three years has been supplied by national hospital, medical, surgical, social service, dietetic, and public health associations, by a few interested individuals, and by a grant from the Rockefeller Foundation. Since the demonstration period was so short it was necessary to offer service immediately, even before material had been collected. *As a result, all material has been assembled in direct response to demand, and no material has been collected which is not of immediate and practical use.* All information collected is carefully assorted and tabulated. It is dispensed in an impartial manner, unbiased by personal opinion; the personnel of the Library not being permitted to offer advice but merely to give information with references as to the sources through which obtained.

This Bureau, which your association has so generously supported, is not merely a reference library of books and journals on hospital matters. As its name implies, it is a combined

library and service bureau wherein may be found hospital literature as well as comprehensive information regarding the construction, equipment, and administration of hospitals. Its service is being utilized by hospital and public health workers in the United States and Canada and also in twenty-two foreign countries. Through contact maintained by correspondence with hospitals of many types of service and with varying conditions and locations, the HOSPITAL LIBRARY AND SERVICE BUREAU is constantly receiving valuable information regarding current hospital practices. Through information thus received it is rapidly assuming its rightful position as a clearing house on hospital construction, equipment, and administration.

While many of the inquiries received are on questions pertaining to the more general phases of organizing, building, equipping, and administering hospitals and allied institutions, hundreds of inquiries are received on more highly specialized subjects, for example, inquiries as to the customary charges for deep therapy, whether light rays transmitted through glass are devoid of therapeutic value, as to whether distilled water is sterile, etc., etc. It requires considerable time to procure material to answer inquiries of this nature. The more obscure the reference, the greater the amount of time spent. It frequently takes several days' work to procure information regarding some special phase of hospital work and often necessitates considerable correspondence. An inquiry recently received regarding electrocardiographic apparatus required more than one hundred letters to procure and acknowledge the information desired. This is mentioned only as emphasizing the necessity of work of this kind being handled by a central organization. The information thus procured is available not only to answer the needs of the person from whom the inquiry is received, but also to answer the hundreds of similar inquiries which may subsequently be received.

As an indication of the wide range of inquiries received, the following questions asked have been taken at random from our list of inquiries:

Insulation for deep therapy rooms.	Duties of superintendent of tuberculosis sanatorium.
Percentage of babies born in hospitals and number born at home.	Care of rubber goods.
Community chests.	Laundry equipment.
Heliotherapy.	Group medicine.
Built-in equipment.	Schools for children maintained in hospitals.
	Per capita costs.

- Budgets for schools of nursing.
- Relation of medical staff to hospital.
- Orthopedic departments in general hospitals.
- How can auxiliary boards help the hospital?
- Major classes of diseases for which children go to hospital.
- Organization charts for schools of nursing.
- Organization boards of trustees.
- Convalescent homes.
- Staff organization.
- Operating room technique.
- Types of heating plants suitable for hospitals.
- Charges for radium treatments.
- Value of cubicles in preventing transmission of infection in children's hospitals.
- Rehabilitation of industrial cases.
- Training school publicity.
- Therapeutic value of color in hospital.
- Chart racks or holders for charts and records.
- Refrigeration.
- Selection and organization of hospital personnel.
- Storage rooms.
- Volunteer workers.
- Tonsillectomy records.
- Size of private rooms.
- Staff relationships.
- Sterilization.
- Electricity for cooking.
- Equipment children's hospitals.
- Equipment private rooms.
- Medical social work with cardiacs.
- Ancient and primitive customs for care of the sick.
- Laboratory equipment.
- Records.
- Use of old ferry boats for vacation colonies.
- Relationship of superintendent of nurses to hospital superintendent.
- Swimming pool construction and sanitation.
- Vacations given hospital employees.
- Incinerators.
- Screening for hospitals.
- Hospital for white patients with training school for colored nurses.
- Post-operative infections resulting from faulty technique.
- Inquiries as to organization, construction, equipment, and administration of hospitals of all sizes and types of service.
- Right of hospital to choose its staff.
- Pay clinics.
- Rules and regulations for interns.
- Follow-up systems.
- Electrotherapy.
- Fire protection and prevention.
- Salaries paid to hospital workers.
- Budget making for hospitals.
- Construction of cubicles.
- Open-air classes.
- Hydrotherapy.
- Liability of the hospital.
- How to secure and invest endowments.
- Occupational therapy for children.

- Duties of hospital housekeeper.
- Definition of orthopedic service.
- Ratio of nursing personnel to patients.
- Group nursing.
- Ratio of hospital beds to population.
- Tests of aluminum as to durability and imperviousness to acid.
- Organizing social service departments.
- Curative workshops.
- Ratio of hospital staff to bed capacity.
- Hospital libraries.
- Hospital publicity.
- Forms of bequests.
- Student government.
- Contract between hospital and laboratory technician.
- Rules and regulations for medical staff.
- Accounting.
- Organization of dispensaries.
- Equipment for nurses' homes.
- Disinfection.
- Credit departments.
- Alumnæ associations.
- Dispensary admission systems.
- Health classes.
- Soundproofing.
- Should out-patients be recorded as patients admitted, counted and discharged in the record of hospital days?
- Routing schemes for dispensaries.
- Training of hospital executives.
- Flooring.
- Orthopedic hospitals.
- Unified records for hospital and dispensary.
- Kitchen planning and equipment.
- Decorations and furnishings for hospitals and nurses' homes.
- Central food service.
- Waste disposal.
- Nutritional value of milk powders and milk substitutes.
- Care and education of crippled children.
- Division of authority between superintendent and medical staff.
- How should out-patients be treated in compiling hospital costs per patient.
- Occupational therapy in general hospitals.
- Training dietitians.

The first and most frequent demands for service were from people interested in the construction of hospitals. To meet their needs a Permanent Educational Exhibit of floor plans of hospitals, sanatoriums, nurses' homes, medical schools, and allied institutions was established. The inquiries received and the use made of the material indicated that working drawings and specifications would be superfluous. It was largely members of building committees, boards of trustees, hospital superintendents, and hospital architects who utilized the plans. Since the majority of these were lay people, they were merely confused by detailed drawings and found more helpful floor plans which gave them the basic information they were seeking, that is the gen-

eral layout of the buildings and the relative locations of the different departments. A conservation of time, effort, and money has resulted. Heretofore it has been necessary for committees responsible for the building of a new hospital to visit, at a considerable expenditure of time and money, hospitals in various parts of the country. At best only a hurried inspection could be made, which resulted in a confused and incoherent impression of the institutions visited. Through the Educational Exhibit of floor plans it is possible for committees to examine, in the Library, floor plans of several hundred hospitals similar to the one being planned. It is not only possible for them to thoroughly examine individual hospitals but also, by reason of having the plans side by side, to make interesting and valuable comparisons.

Through the co-operation of hospital architects plans of over 600 hospitals, sanatoriums, nurses' homes, and institutions of a like nature have been assembled. Experience has shown that while there is considerable interest in more recently constructed hospitals, there is also a great amount of interest in the older institutions which have met the test of time. The plans of extremely old institutions, of course, are chiefly of historical interest.

The Educational Exhibit of floor plans is a permanent one, available for use at the HOSPITAL LIBRARY AND SERVICE BUREAU. NO PLANS ARE SENT OUT OF THE LIBRARY save for exhibit at the meetings of the hospital associations when they are in charge of a representative of the Library. Committees and hospital architects utilizing the plans use, in conjunction with them, material from the reference files. In formulating plans for a children's hospital, for instance, discussion may arise as to the extent to which cubicles are used, their construction, and their value in preventing the transmission of infection. This information is available in the form of correspondence, clippings, and package libraries.

Members of building committees or persons constructing new hospitals are interested in information regarding the work of hospital architects. This information is furnished through a list of architects who have had experience in this special field. The list is arranged geographically and gives, in addition to the name and address of the architect, a list of the institutions designed, and the date of construction, thus enabling the user to form a fairly accurate opinion of the scope and merit of the architect's work. In the event that the user is not familiar with

any of the institutions designed, it is frequently possible to show plans of some of these institutions in our exhibit. All plans are filed according to the type of service, such as general hospitals, maternity hospitals, children's hospitals, etc. This permits ready access to the plans of hospitals whose size and type of service are comparable to the institution being planned. In each case attention is directed to additional material in the files on such general subjects as heating, lighting, ventilating, and the planning of such special departments as laboratories, laundries, and diet kitchens.

Through the generous cooperation of authors and publishers a comprehensive library has been developed. Although the number of books on hospitals and hospital activities is limited, as compared with the literature in other fields, a library of 1,415 volumes has so far been collected. These volumes deal with the history of hospitals, their construction, administration, equipment, the work of departments in the hospital such as, nursing, social service, dietetic, occupational therapy, dispensaries, laundry, operating room, laboratories, etc., and of allied subjects, such as public health and hygiene, the relationships of which are closely allied to hospital work. Transactions and yearly reports of the associations engaged in hospital and public health work also form a valuable part of the Library.

Approximately 1,500 pamphlets and reprints, classified by subject, are available in the Library for reference purposes.

A complete file of hospital, nursing, social service, occupational therapy, and allied journals is maintained. In addition to these journals, which are being received currently, it has been found necessary to add many medical and surgical journals, since these frequently have valuable material of interest to hospital administrators and heads of departments in the hospital. A total of 167 journals are on the reference shelves of the Library.

Indexing of the three hospital magazines is well under way. A complete author, subject, and title index with all the essential cross references has been prepared for Hospital Progress and Hospital Management. The Modern Hospital is being similarly indexed. As time permits, a careful analytical index will be made of articles appearing in each of these journals from the first number up to and including the current issue. These analyticals will bring out the important subject matter appearing in the paragraphs of the various articles.

That hospital workers may utilize to the greatest extent publications in their own file, bibliographies have been compiled

on nearly one hundred subjects. A brief list of magazine and book references is first prepared, then as time permits, a more comprehensive bibliography is compiled. The work of compiling these bibliographies is laborious in the extreme and requires unusual concentration and accuracy. For the greater part of the current year the librarian and three assistants have devoted their entire time to a revision of the bibliographies so far compiled. The result of this work is an exhaustive index to the literature for the past eight years. Covering, as they do, the greater part of the period during which the American hospital journals have been published, they form an invaluable catalog of hospital literature. The bibliographies are multi-graphed for distribution and are given, without charge, to anyone in hospital and public health work requesting them. Over six thousand bibliographies have been distributed to date.

Anything which conserves the time of busy hospital workers is of inestimable value. The consistent use of bibliographies and package libraries by hospital administrators has reduced to a minimum their time spent in locating recorded facts. The package libraries are composed of clippings, reprints, excerpts from articles, books and letters—material in any form available which has a bearing on the subject. They are sent to anyone in hospital or public health work, irrespective of geographical location. To permit of their being carefully studied, package libraries may be retained for a period of three weeks after receipt, at the end of which time they are returned to the Library to be sent to other persons interested. This material is especially valuable to persons located in rural communities who do not have access to the literature or contact with other hospital workers.

Seven hundred eighty-three package libraries on subjects selected by the persons making the inquiry and covering a total of 228 subjects are in circulation. This material in package library form has been sent to 2,633 people, but this represents the minimum number of persons utilizing the material. In returning package libraries the statement is frequently made that they were used by several people, often by committees of five, seven or more persons. The package libraries are also extensively used by visitors to the Library. They are in effect miniature libraries on the subject covered.

A visualization of how the Bureau functions can best be conveyed through the story of its service to a hospital in a rural community. None of the information desired was available in this town, so that everything had to be sent in the form,

of package libraries. The request for information merely stated that the group of citizens were conscious of their need of a hospital and asked for any information which would help them in developing one.

The first information sent dealt with the ratio of hospital beds to population to provide for the adequate hospitalization of a community, material on preliminary surveys to determine the actual need of a hospital, its probable capacity and type of service, information as to the hospitals in the immediate vicinity, so that consideration might be given to the surrounding territory to be served. The interests of these people logically divided them into two groups, those interested largely in the financing and actual construction and those whose principal interest was in the organization of the hospital and its administration. The first group was sent material dealing with methods of financing, publicity campaigns, and material used by other institutions in procuring funds. As soon as there was a prospect of the necessary funds being available they were sent numerous package libraries dealing with selection of the site, general principles of hospital construction, soundproofing, fire protection, heating, lighting, ventilating, flooring, laundries, laboratories, operating rooms, kitchens, refrigeration, and similar information which aided them in crystallizing their ideas as to what was needed for that particular community. From our list of architects information was sent regarding the architects and their hospital experience in cities specified by the committee. The entire building committee, the hospital architect, and the superintendent for the new hospital then came to the Library to look over plans and over material bearing on the construction of the hospital. At the end of a day's conference, during which the Library's only activity was in supplying material needed, the committee and the architect had a very definite idea as to the plan of the hospital. During the discussion, when an idea was suggested which was not in keeping with the hospital being planned, the architect was able to show them on the various plans available why the idea was not architecturally sound. Again, the different layouts seen in the plans aroused discussion and resulted in the committee definitely determining the general layout of the building and the location of the various departments. The committee started with the idea of housing nurses and employees in the hospital, but when they found how few hospitals of the size they were planning (75 beds) had done this, they realized that no doubt the space was too valu-

able to use for this purpose. As a result, they procured additional funds with which to build a nurses' home.

Meanwhile the other committee was utilizing material on articles of incorporation, hospital constitution and by-laws, organization of boards of trustees, duties and responsibilities of trustees, organization and selection of hospital personnel, salaries being paid hospital superintendents, salaries being paid superintendents of nurses, dietitians, etc., ratio of nurses to patients, and information of a like nature.

As construction started these committees again combined in the selection of equipment. Service was rendered to these committees until the hospital was in operation. Subsequent to the opening of the hospital, service has continually been given to the superintendent, trustees and department heads.

The service of the Bureau has grown through hospital workers, who have had material from the Library, telling others of the service rendered. Contact with the greatest number of individuals interested in hospitals, however, has been established through the exhibits of the HOSPITAL LIBRARY AND SERVICE BUREAU at national hospital association meetings. During the first three years exhibits have been held at the meetings of the Catholic Hospital Association of the United States and Canada and the American Hospital Association. These exhibits have attracted unusual attention and through the personal contact afforded have revealed many new types of material which would be valuable in the Library.

With but limited publicity given to the work of the Library the demand for service has been so great as to tax to the utmost the ability of its staff to meet the demands. As a consequence the Library early outgrew its offices. Additional space has just been procured which will care for the increased staff and the rapidly increasing reference material.

This report relates to the work of the three year demonstration period which was concluded June 30 of this year. A word as to the future. The Committee of the Conference immediately responsible for the Hospital Library and Service Bureau recently authorized an increased budget for the ensuing three years, so that the facilities and service may be maintained and extended. *The full service of the Library, in future as in the past, will invariably be given free of charge or obligation to anyone having a legitimate interest in hospital work, the financial support being obtained through voluntary contributions from associations and through annual sustaining memberships*

from individuals and hospitals. The sole purpose of this activity of the Conference is the betterment of hospital service through making available to all the combined experience of the entire field so far as this can be collected, classified, and dispensed.

The session then adjourned.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin.

October 31, 1923, 9:30 a. m., President Bacon
in the Chair.

GENERAL SESSION

PRESIDENT BACON: Dr. Babcock, Superintendent of Grace Hospital, was on the program for last evening, but on account of our program being so full, I felt it better to postpone his paper until this morning.

RESPONSIBILITIES OF THE HOSPITAL IN MINOR OPERATIONS AND OTHER PROFESSIONAL ACTIVITIES

By WARREN L. BABCOCK, M. D., Director, The Grace Hospital,
Detroit, Michigan.

Little attention has been paid by many hospitals to the responsibilities arising from minor operations and many other details of hospital procedure. The short remarks that follow will merely call attention to some of these considerations, not all of which pertain to minor operations. In discussing this subject, let it be understood that consideration should be given to various internal hospital procedures having to do with the professional and nursing care of the patient. Let me make this clear by stating that no so-called open hospital can properly function without giving due thought and attention to the methods of surgical and obstetrical preparatory procedure and after care. If the diagnostic study and method of preparation for an operation or confinement is correct and established as a routine procedure, it would minimize pre-operative errors and accidents. Similarly, if after care is standardized into a routine practice, the measures adopted may be considered preventive.

It is true that the subject is largely a professional one and the working out of detail should be in the hands of the professional staff. It is noted, however, that the professional staff seldom gives serious consideration to the legal responsibilities of the hospital. It becomes, therefore, the duty of the hospital administration to see that these standardized procedures are inaugurated and published for the benefit of all physicians who practice in the hospital, as well as for the guidance and education of residents and interns. This has been carried out in most large hospitals, and in many has been a matter of routine for several years.

The subject that has been assigned to me was selected by your presiding officer, whose wide experience in hospital administration may have suggested to him that the newer and smaller hospitals of the country might be interested in a discussion of the subject.

While in most states the supreme courts have held that general hospitals, not conducted for profit, are not responsible for the acts of their agents, nevertheless, the moral responsibility is, if anything, keener in the absence of full legal responsibility. It is true that in one or two states—notably Ohio—decisions have been made by the supreme courts adversely to hospitals, and this may be taken as an assumption of stricter interpretation of the legal responsibility of hospitals in general. In the case of closed hospitals with a limited attending staff, standardized procedures in pre-operative and post-operative care, as well as obstetrical practice, has limited the number of accidents that occur as a result of diverse practice or lack of routine procedure.

All so-called open hospitals should develop definite high class standards of surgical, obstetrical and medical practice, and require all physicians who send patients to the hospital to meet a high average of professional efficiency. These standards should be set above the average practice of the general profession, and all new applicants for hospital practice should be subjected to the closest scrutiny to determine their fitness. In this connection, it is advised that the hospital authorities, in addition to ascertaining the standing of the practitioner through special inquiries, should in all cases closely supervise his surgical operative work, or his obstetrical and medical practice, until satisfied that the physician or surgeon is a safe and reliable man, both in judgment and in methods.

It should be the practice to assign as an assistant to a new physician or surgeon for his first hospital patients, the most reliable man on the resident staff—either the resident physician, a senior intern, or, where such may be lacking, a junior member of the staff who can be relied on for proper advice and scrutiny.

In many of our large cities the competition in surgical practice is keen. The history of medicine reveals the fact that surgical experience, in the case of some surgeons, has been gained at the expense of the patient's physical well-being.

If a young physician aspires to surgical practice without the proper training, he should be asked to acquire that training in the best possible manner. Such an individual should ally himself with an older and competent surgeon, as his assistant, and acquire his surgical training in his office or hospital practice. Specialism in any branch of medicine today is not acquired in a short period of time and any young aspirant can afford to devote several years as an as-

sistant, in developing his work in any specialty, whether surgery, obstetrics, medicine, ophthalmology, otology, etc.

The hospital can very often assist a young physician with ambitions to acquire experience in his chosen specialty, with an older representative of the specialty, on the staff. In a general hospital of 350 beds we have found it relatively easy to place promising young men in positions as assistants to attending physicians and surgeons on the staff, in such relation that they acquire experience legitimately without danger to the patients on whom they practice. The out-patient department, the daily ward and operative clinics, and the staff meetings, all offer further opportunities for his advancement.

The opportunity which is offered in postgraduate training in various medical centers should be sought as a part of their training. It is our custom to insist that the younger men in our out-patient department, and assistants on the attending staff, spend from one to three months each year in postgraduate study in their specialty. Definite promise of recognition and ultimate advancement is held out to these candidates for higher staff honors, and the plan outlined, in its entirety, has produced splendid results in the past ten years.

These remarks on the subject of professional competency in the young medical men are made to illustrate the need of sure and safe training. Much of the minor surgery in hospitals is carried out by the younger surgeons. The senior surgeons naturally turn this work to them. It offers the principal means of "experience practice" in hospitals during their apprenticeship, and the hospital must take full responsibility for their work. How better can this be accomplished than through the requirement that chiefs of departments and senior staff members should formulate a scheme of standardized practice and routine that has been found from experience to be safe and practical?

The responsibility of the hospital in its varying relations with the sick can be discussed in but little detail here, and I shall confine myself to a few examples which will serve to cover the most common phases of hospital practice.

First, let us take up the subject of anesthesia.

A hospital that does not avail itself of the best talent in anesthesia training and service is indifferent to its responsibilities to the public. Highly trained anesthetists, or supervision of competent anesthetists, is absolutely necessary to safeguard the reputation of the hospital. Just here let me explain that, in my judgment, it matters not whether the anesthetist is a physician with years of practice, an intern, or a nurse. He or she must have the requisite training, not only in the fundamentals of medicine and surgery, but in practical anesthesia. It has been my good fortune to be associated with the postgraduate instruction of nurses in surgical anesthesia, with

most happy results, and the hospital that I represent would consider it a backward step to revert to the old days when all anesthetics were given by indifferently trained or disinterested interns. It is a common axiom in any line of endeavor that, in order to do a thing well, you must like your work, take an interest therein, and make it a definite means of livelihood. In the past interns, upon whom devolved the administration of anesthetics, looked upon this branch of medicine lightly and considered it only a necessary, evil piece of routine in the course of their internship.

A trained nurse who takes up this line of work, if carefully selected, contemplates making it a means of livelihood and concentrates her interest in the acquisition of the specialty. She is sensitive to instruction and criticism, conscientiously feels a well balanced sense of individual and moral responsibility, and soon acquires efficiency in her work. When it is understood that the majority of graduate nurses taking up this course are usually women from thirty to forty years of age, it is realized that they enter this new field of nurse endeavor with the most serious intentions. During a period covering the last six years, anesthetic accidents, within our observation, have diminished very largely in the hands of these highly trained anesthetic nurses. In this connection, it should be stated that the nurse anesthetic personnel in all hospitals should be under the immediate direction of a physician who gives the greater part of his or her time to the supervision and training of these anesthetists. It should also be said that their training never ceases, as certain emergencies in anesthesia may arise only once or twice in a year, even in a service where from twenty to forty general anesthetics are carried out daily.

Well-trained nurse anesthetists should be equally competent in the administration of either ether or gas-oxygen. The development of this type of anesthetic service has been found to give the greatest encouragement for the use of gas-oxygen in general surgery. In a total of over 6,000 anesthetics, in 1922, fully 1,600 were gas-oxygen administrations in major operations of which over 1,000 were laparotomies. It is a pleasure to record that this entire series, in the hands of nurse anesthetists, was carried out free from any serious accident which might be attributed to the anesthetic. The anesthetists are taught that no danger signal should pass unnoticed and that measures of prevention early in the course of the anesthesia will save many a life.

In obstetrical practice in hospitals, the elimination of chloroform—which for many years was the anesthetic of choice—in favor of ether and gas-oxygen, has proven a decided step in advance. Here, again, the trained anesthetist is a requisite, and the practice of administering anesthetics in emergencies to the woman in confine-

ment, by any untrained nurse or intern who is available, is no longer justifiable.

In the field of minor surgery there is much for consideration. In the nose and throat department, stress should be constantly laid on clinical standardization of essential requirements. For example, every operator or specialist must heed the normal indications for tonsillectomy. The hospital that permits members of the staff or outside physicians to remove tonsils without checking up on the indications and the contra-indications of tonsillectomy and adenectomy, is not fulfilling its duty to the public or the profession. Many years ago the nose and throat department of our hospital prepared a brief outline of indications and contra-indications, together with house orders to cover any emergency in this department. They will be found in full as an addenda to this paper. As these considerations are professional and technical, it is not necessary for me to read them here. With this standard of practice always before them, the residents and interns are able at any time to make comparison in methods and report to the hospital administration departures from safe procedure on the part of the operator.

In the treatment of fractures and dislocations, the availability of the X-ray for diagnosis and checking treatments has been a great measure of protection to hospitals. This fact is so well known that it is scarcely necessary to mention it here, except by way of emphasis. The same may be said of routine laboratory examinations.

The nose and throat department, the surgical and obstetrical departments, as well as most of the specialties, should publish standardized methods of procedure for routine work. In surgery, for example, this should cover the pre-operative period and the preparation of the patient for operation. It should also cover the post-operative care of the patient for such a period of time as the patient may be subjected to danger from the operation. In the obstetrical department the published directions for the preparation of the patient, before and after delivery, as well as immediate care of the infant, should be printed and available to all physicians and interns. In the department of orthopedics and urology—mentioning only these two as an example—it is highly important that the technical, professional and nursing procedure should be printed and available for the use of all physicians and nurses charged with the detail of routine treatment. In the infant services, this rule is so universally followed in hospitals that it may be taken for granted that standardized infant feeding methods, milk preparation, etc., are provided by all hospitals in published form.

The personnel of the large general hospital is a changing body of nurses, doctors and employes—but the work of the hospital goes on, and the responsibility of the administration never ceases. Pub-

lished instructions and outlines of procedure in the highly specialized professional work of today are perhaps the best means of prevention of accidents at the command of the hospital. That "It is human to err, and to err is human" should never be forgotten.

I am told that in many of our small hospitals in country communities or small cities it is the custom of some physicians practicing in the hospital to bring a patient from a distance to their hospital, at the time of their morning visit, for a tonsillectomy, adenectomy, circumcision and even a pneumothorax, and, on their return visit in the afternoon, remove the patient to his home. This is bad practice and should be strongly deprecated.

In all cases of contemplated nose and throat operations, a throat culture should be taken within twenty-four hours of the operation and a negative report presented before preparation for operation is made.

In a nose and throat clinic, where six to twenty operations are carried out daily, several patients presenting for operation are returned home each week because the throat culture shows the streptococcus or Klebs-Loeffler bacillus, and occasionally clinical diphtheria may be detected. A slight rise in temperature may indicate an incipient infection.

It thus happens that a school child, presenting for tonsillectomy, has instead received ten to thirty thousand units of diphtheria anti-toxin, followed by an assignment to a contagious ward, with both a laboratory and a clinical diagnosis of diphtheria. Our routine practice in all these cases contemplates a twenty-four hour culture, a thorough physical examination of the heart and lungs, urinalysis, a blood pressure examination, and a signed consent of the parents for the operation in the case of minors. For patients admitted for tonsillectomy, adenectomy or circumcision, who contemplate remaining in the hospital twenty-four hours only, a twenty-four hour chart is used which provides for a brief family history. This chart sheet is a combination sheet, providing spaces thereon for all the essential records in a twenty-four hour case, including temperature record, laboratory findings, medication, etc. Where the history is significant of specific infection, a Wassermann is a preliminary requisite. The danger of hemorrhage after a throat operation, on a restless child, continues from twenty-four to thirty-six hours, and after care in trained hands is necessary for both comfort and safety.

There is no opportunity for scientific diagnosis where the physician brings or sends the patient to the hospital, operates immediately and removes the patient at night. Patients for minor operations should enter the hospital the preceding afternoon, in order that the preliminary examinations may be carried out—unless such examinations can be previously made in the out-patient department. To

this group, we may add eye injuries, including foreign bodies in the eye, which should be under supervision from twenty-four to seventy-two hours; also cerebral concussion, traumatic shock, hand and foot injuries and paracentesis of the chest and abdomen.

The custom of entering patients into hospital for observation is happily a growing one and should be encouraged as an aid to diagnosis and safety. It is a distinctive advance in preventive medicine and the time element in diagnoses has been shortened, because a dozen eyes in the heads of trained observers, among the nurses, interns and medical associates are daily observing the patient, and the hospital offers facilities for technical assistance in diagnosis, not obtainable at home.

The following instructions to physicians in the hospital and out-patient department, are suggestive of a routine practice that should insure reasonable safety and tends toward the prevention of accidents.

Physicians in the out-patient department will see that all candidates for tonsillectomy, present one or more indications for operation before patient is transferred to the hospital.

The indications present in each case will be placed on the patient's record card in conformity with this list at the time of the examination.

The hospital orders have been made simple and will be carried out in all cases unless the surgeon in charge of the patient writes other orders on the chart.

INDICATIONS FOR TONSILLECTOMY

(The indication and contra-indications for tonsillectomy and the house orders for tonsil and adenoid cases were written by Dr. Harold Wilson, Chief, Department of Eye, Ear, Nose and Throat, The Grace Hospital, Detroit. The house orders in surgery and obstetrics were compiled by committees from these departments, The Grace Hospital.)

A. *Conditions Affecting the Tonsil Itself—*

1. Recurrent tonsillitis.
2. History of peritonsillar abscess.
3. Chronic lacunar tonsillitis.
4. Persistent redness of peritonsillar mucosa.
5. Presence of pus in the tonsil.
6. Prominent tonsils with open crypts.
7. Persistent diphtheria bacilli in tonsils (Diphtheria carriers).
8. Persistent hemolytic streptococci in tonsils.
9. Leptothrix or other fungous disease of tonsil.
10. Tuberculosis of tonsils.
11. Malignant disease of tonsils.

B. *Regional Conditions, if associated with one or more of above indications (A).*

1. Cervical lymphadenitis.
2. Chronic lateral pharyngitis.
3. Persistent bronchitis in children.
4. Persistent laryngitis.
5. Chronic and subacute otitis media and tubal catarrh.

C. *Systemic Conditions, if associated with one or more local indications in (A).*

1. Chronic arthritis and other rheumatoid manifestations.
2. Chronic endocarditis, (patient's condition permitting).
3. Chorea.
4. Goitre, simple or toxic.
5. Malnutrition and asthenia in children without other apparent cause.
6. Iritis, episcleritis and other chronic or recurrent ocular infections without other apparent cause.
7. Neuritis, local and without other apparent cause.

CONTRA-INDICATIONS FOR TONSILLECTOMY AND ADENECTOMY

1. A body temperature of 99° or more by mouth at the time of operation.
2. Acute arthritis.
3. Acute septic myocarditis or endocarditis.
4. Acute tonsillitis.
5. During acute stages of infectious diseases.
6. Hemophilia.
7. Blood coagulation time exceeding eight minutes.
8. Pulmonary tuberculosis, incipient or during stage of arrest.

HOUSE ORDERS FOR TONSIL AND ADENOID CASES

Each patient on admission, shall have his history taken and the necessary physical examination made as provided for by the general orders covering surgical patients.

No cathartics or enemas shall be given except when specifically ordered by the surgeon in charge.

No morphine or other drugs are to be given unless ordered by the surgeon in charge.

Patients shall be undressed and provided with bed garments as in general surgical cases.

No food shall be given to patients six hours previous to the time of operation, unless orders to the contrary are given by the surgeon in charge.

No water is to be given by mouth for two hours previous to the time of operation, except where local anesthesia is to be used.

All patients showing temperature of 99° or more, or other signs of acute illness just before the time of operation shall be reported to the surgeon in charge.

In all cases of suspected hemophilia, the clotting time of the blood and the bleeding time shall be taken before operation.

No patient shall be taken from the operating room until all bleeding has ceased.

The anesthetist shall accompany the patient to his bed and shall remain with him until consciousness has so far returned that he may safely be left with the nurse in charge.

No patient shall be left alone until fully conscious.

For each operated patient there shall be provided and in readiness at the time of his return to bed, the following:

1 glass of ice water.

1 packet of clean gauze.

4 clean towels.

1 pus basin.

The nurse in charge of the operated patient shall remain with him after his return to bed as long as he is unable to keep his own mouth and throat free from mucus and blood.

Following the patient's return to consciousness, he shall be continuously provided for 24 hours with the following:

1 glass ice water.

2 or 3 pieces of clean gauze.

1 clean towel.

1 pus basin.

It shall be the duty of the nurse to visit each operated case in her care after consciousness has returned, not less often than once every half-hour during the first six hours following the operation, and at hourly intervals thereafter.

Fluids, preferably cold, are to be allowed following all tonsil and adenoid operations, except when otherwise ordered.

The diet is to be soft, and is to be allowed as soon as it can be retained.

OBSERVATIONS AND RULES CONCERNING HEMORRHAGE

Most tonsil and adenoid cases after operation, will expectorate more or less bloody mucus. If this expectoration becomes increasingly bloody, assuming the character of a definite hemorrhage, the nurse shall immediately cause some member of the house staff to be notified, who shall immediately notify the surgeon in charge of the case.

It shall be the duty of any member of the house staff when called to attend a case of hemorrhage occurring after tonsillectomy or adenectomy, to visit the patient at once. On examining the patient, if there are signs of a hemorrhage requiring active intervention, the throat should be immediately inspected; the nature, site and extent of the bleeding determined, and pressure made at this point with a small compact gauze sponge. (If the bleeding is from the nasopharynx, and is severe enough to warrant such a measure, a gauze tampon is to be placed in the naso-pharynx.) If the bleeding stops when such pressure is made, this should be maintained continuously for not less than ten minutes; repeating the maneuver if necessary, for a period, until all bleeding has ceased.

In the case of children and others who will not submit to the treatment above described, the patient shall be taken to the operating room and placed under full anesthesia, when the following procedure shall be adopted:

With a mouth gag in place, the throat is gently wiped clean of blood, blood clots, debris, etc., and an effort made to locate the site of hemorrhage. When this has been determined, the bleeding point is to be seized if possible, with one or more hemostatic forceps. If bleeding now ceases, the forceps may be left in place for not less than five minutes, then strongly compressed and removed.

If bleeding cannot be stopped in this way, or by the use of simple pressure, a gauze sponge may be placed in the tonsillar fossa, and the tonsillar pillars sutured over it. This sponge should be removed within 24 hours.

Arterial bleeding may be stopped by the use of hemostatic forceps, which if necessary may be left in place for some time after the patient has regained consciousness, or the bleeding vessel may be ligated (with silk or linen).

In any case where these measures have been carried out, and the bleeding still continues, in consequence of an unduly prolonged coagulation time, thromboplastic substances may be given under the direction of the surgeon in charge; or other methods such as blood transfusion may be employed at his discretion.

In all cases where moderately severe or more extensive bleeding occurs, or in which the hemorrhage of whatever degree, does not cease after a reasonable time, or in which the patient is showing clinical signs of the loss of blood, the surgeon in charge shall be notified by the member of the house staff in attendance on the patient.

If the patient continues to vomit blood after a reasonable time, it is possible that bleeding is going on, and the blood swallowed instead of being spat out. The nurse should note any undue swal-

lowing following the operation or an unduly bloody vomitus, and report the same to the house staff.

HEMORRHAGE

Hemorrhage during or following tonsillectomy or adenectomy may be classified as follows:

1. That in which the total amount of blood lost is approximately from 1 cc to 100 cc, following which, there are no important clinical results.

We may distinguish the different degrees of hemorrhage in this class as

- a. Slight. b. Moderate.

That in which the total amount of blood lost lies between 100 cc and that amount necessary to cause death, following which, more or less easily observed clinical signs of hemorrhage may be present. We may distinguish the different degrees of hemorrhage in this class as

- a. Severe. b. Very severe.

SURGICAL DEPARTMENT—STANDING HOUSE ORDERS

ADULTS ONLY

PREPARATION OF PATIENT FOR OPERATION:

Castor oil, one oz. at once, unless physician orders to contrary, except cases of intestinal obstruction or acute appendicitis.

Temperature per mouth, at four hour intervals in acute cases. If doubtful, then take temperature per rectum.

Pulse and respiration, at four hour intervals in acute cases.

Shave entire region of operation, giving wide margin; follow with hot bath.

Only fluids for the evening meal.

Send specimen of urine to laboratory.

LOCAL PREPARATION OF REGION OF OPERATION:

Wash with soap, warm water and sterile gauze 5 minutes, using three changes of warm water. Rinse with sterile water.

Apply sterile, dry dressing, covering whole area and strap in place with one-inch strips of adhesive plaster.

Vaginal cases to have 2-quart warm water douche with $\frac{1}{2}$ per cent Tri-Kresol.

MORNING OF OPERATION:

Simple soapsuds enema if bowels have not moved well.

Only water by mouth before operation.

Adult patients to receive one-half hour before operation 1/6 gr. morphia and 1/150 gr. atropin hypodermically unless otherwise ordered.

Urinalysis on chart before time of operation.

Rinse patient's mouth with antiseptic solution and clean teeth with sterile gauze or tooth brush before time of operation.

The nurse shall see that all female pelvic and abdominal cases voluntarily empty bladder 15 minutes before leaving for operating room. If not voluntarily emptied, then catheterize unless otherwise indicated upon chart by surgeon. Male patients shall not be catheterized unless special orders are written on chart by attending or house surgeon.

If the physician in charge of the patient, or an intern acting for him shall write "House Orders," name and hour of operation on patient's chart, the above orders shall be carried out. Orders other than the above shall be written in full detail.

CARE OF PATIENT FOLLOWING OPERATION :

The anesthetist shall accompany patient to the bed and before leaving shall see that he or she is in a fair way towards recovery from the anesthetic.

The bed shall have been previously warmed.

All hot water bottles shall have been removed from the bed when patient is returned from operating room.

The nurse shall remain until patient is conscious.

Morphine 1/6 gr. hypodermatically; one dose may be given to adult patients if necessary to control pain. Thereafter morphine shall not be administered without a physician's order.

Water (hot or cold) may be given as patient requests in quantities tolerated.

Only water or weak tea shall be given in the first 24 hours.

Fluids shall be gradually increased in the second and third 24-hour periods as may be borne by the patient. In the second 24-hour period broths and other liquids may be added.

Vomiting—A nurse shall attend the patient to care for vomited material and make the patient comfortable.

In cases of persistent vomiting, rapid pulse, high or low temperature, the house and attending surgeons shall be notified. In case the attending surgeon cannot be reached, the house surgeon shall wash out stomach.

A nurse shall record pulse every two hours for first 24 hours. If pulse reaches 130 the house surgeon is to be immediately notified.

Gas and mild grades of intestinal paresis shall be relieved by an enema consisting of a pint of soap suds and water.

Pituitin is not to be administered except by order of the attending surgeon.

These rules do not apply to nose and throat, eye and ear, and special operations.

OBSTETRICAL DEPARTMENT—STANDING HOUSE ORDERS

1. Upon admission of the patient the nurse shall notify the intern on duty in the obstetric department. If the patient is admitted through the polyclinic the patient's clinic card shall be obtained and remain with the chart until termination of case, at which time both card and chart shall be turned in completely filled out by the intern under the direction of the obstetrician in charge of the case.

2. Send specimen of urine to the laboratory.

PREPARATION OF PATIENT:

1. Soapsuds enema.
2. Careful shaving of all pubic hair.
3. Sponge bath.
4. Scrub external genitals from above downward with sterile soap and water.

Sponge the genitals with 1 per cent cresolin solution.

5. Routine catheterization with soft rubber catheter of all cases actually in labor, who have not been able to voluntarily pass urine within an hour of the time preparation is undertaken. Sample of urine thus obtained to be sent to the laboratory for urinalysis.

6. Call intern when pains are at five minute intervals, or when the perineum is bulging.

7. The use of general anesthetics for instrumental delivery or operation shall be restricted to ether, nitrous oxide and oxygen.

DELIVERY:

1. Immediately upon delivery, two drops of freshly prepared solution of 25 per cent silvol shall be dropped in each eye of the child.

2. A sample of blood shall be taken from the cord and sent to the laboratory for a Wassermann, accompanied by written request therefor.

3. Immediately after delivery of the placenta, a nurse shall gently massage the fundus of the uterus by Crede's method for at least fifteen minutes. Frequent observation as to the state of contraction shall be made and recorded on the chart for a period of at least two hours.

4. The placenta shall be sent to the laboratory for macroscopic examination. Microscopic examination will be made where further investigation is warranted.

5. The labor chart shall be kept in labor room and all examinations and operation noted on chart.

PUERPERIUM:

1. Fluid diet for the first twenty-four hours; soft diet with fluids for the following forty-eight hours. House diet with fluids thereafter.

2. Catheterize every twelve hours if necessary.

3. Soapsuds enema twenty-four hours after delivery unless perineal sutures are present. P. R. N. thereafter.

4. Mother to nurse her child every four hours between six a. m. and ten p. m. Until milk appears in the breasts, the child is only to be allowed to nurse for five minutes.

5. Before and after each nursing, the nipples shall be sponged with sterile water.

6. After first 24 hours the patient may be raised and supported on the bed pan for urination and defecation.

CARE OF THE INFANT:

1. Place baby on right side and watch frequently for hemorrhage from the cord.

2. Tie tape bearing name of the child securely around his wrist before removal from the labor room.

3. Give the first bath of olive oil in the nursery. Dress the cord with 95 per cent alcohol and sterile gauze. A foot print of each foot is to be made and filed with the records.

INTERN'S STANDING HOUSE ORDERS:

1. Record complete history of the case as soon as admitted under direction of attending obstetrician.

2. Make accurate measurements of the pelvis for staff or clinic cases (both inlet and outlet), except when measurements have previously been taken and recorded on the clinic card or chart.

3. Notify the visiting obstetrician, or, if a polyclinic case, obstetrician to whom the case was assigned in the clinic, when the patient is in labor, if between seven a. m. and ten p. m., and any time should anything abnormal occur.

4. Instrumental delivery shall not be attempted by the intern unless on the advice or under supervision of the obstetrician in charge of the case. If any abnormal presentation exists, the intern shall immediately report the same to the obstetrician in the case.

5. If the exigency of the case demands vaginal examinations, the same shall be restricted to the minimum and under strict aseptic conditions. It is suggested that rectal and abdominal examinations be the rule.

HOSPITAL INSURANCE

By FRANK G. WATSON, Chicago, Illinois.

I am asked to speak today on a subject—insurance—which to many presents but one aspect—a fixed charge or expense. Moreover, an item of expense which brings no immediate tangible return. You buy fuel and you secure at once heat and power. The item in the expense column labeled "Salaries and Wages" brings service which in turn yields income. But not so, in this conception, with insurance.

This impression grows out of the erroneous conception that the insurance policy for which you pay your money is, in itself, indemnity, and, in the case of fire insurance, for example, indemnity which you devoutly hope you will never have occasion to realize upon. Its term over, the premium gone, you are prone to think of it as money wasted.

The fact is that the insurance policy is a *contract* of indemnity. Properly drawn, it yields immediately something definite and concrete and well worth the money spent—security. The theory of insurance, as you know, contemplates contributions by the many toward a fund which shall not only indemnify the few who sustain losses but, what is equally important, enable all to live and act free of the dread of impending loss or disaster. Insurance is a business stabilizer without which the miraculous growth and development of this country would have been impossible.

Perhaps no important commodity is purchased with less knowledge, discrimination and investigation upon the part of the buyer. You are about to enter into a business contract. You first engage the services of a lawyer whom you know to be an expert on contracts. Then you acquaint him with every material fact which, by any chance, may have a bearing on the transaction. Before you attach your signature to the document you familiarize yourself with every word of it to see that it covers the situation fully and that the minds of both parties to the contract have met, absolutely. After your copy is filed away you can, if asked, relate all of the ways by which, through acts of omission upon your part, the contract could be breached or voided.

Is it too much to ask that so great care be given to your insurance contracts? In the first place, select the man who, in all your acquaintance, is best qualified to handle your insurance for you and put him in complete charge of it. Great business enterprises, in many cases, have insurance departments headed by experts. Since this is in no way feasible in your case, the best alternative is to concentrate the responsibility in one insurance broker. Dividing the insurance between a number is dividing the responsibility. Between

the public seeking indemnity and the insurance companies offering it, stand a considerable number who are engaged in a highly technical, shall I say, profession. It is unfortunately true that many can be found who will accept an order feeling and accepting little or no responsibility in connection with it—order takers, they might be termed. Bear in mind that you alone suffer if you consider your insurance business a gratuity to be distributed among deserving friends and acquaintances.

It is the duty of your insurance broker to present to you every form of insurance applicable to your situation in order that you may consider all, so that when that loss occurs referred to in Uncle Sam's income tax blank as "not covered by insurance" you will have made your decision in the matter. There are a great many forms of insurance available of which the average insurance buyer is not aware. Many, perhaps most, of the hospitals represented here today are supported in part by contributions and endowments. While the managements of such hospitals are confronted with the same problem of keeping down expenses, there is, to a greater degree than in private enterprises, the obligation to protect such funds by insurance, and the privilege should be yours to at least know of and give consideration to all that the market affords.

You may be interested in any or all of the following:

Automobile insurance—including damage to the vehicle itself and liability for injuries and damage to property of others.

Employees' fidelity bonds.

Burglary insurance.

Office holdup.

Paymaster and bank messenger holdup.

Check forgery.

Employees' compensation.

General liability.

Elevator liability.

Explosion insurance.

Fire insurance—including damage to property, loss of rents of investment properties, use and occupancy of occupied premises and leasehold interest in rented properties.

Engine breakage insurance—including physical damage and loss of use of premises after the breakdown.

Flood insurance.

Flywheel insurance—including damage to property, liability for damage to property of others and liability for death and injuries and loss of use of premises after the accident.

Employees' group life insurance.

Hospital and physicians' defense insurance.

Plate glass breakage insurance.

Riot insurance.

Sprinkler leakage insurance.

Steam boiler insurance—including damage to property, liability for damage to property of others and liability for death and injuries and loss of use of premises after accident.

Teams liability and property damage insurance.

Tornado and windstorm insurance.

Water damage insurance.

There are others which I have not mentioned.

Consideration can be given to the several forms of insurance as divided into two broad classes. Into the first falls the methods of protecting from loss through damage to or destruction of the property itself such as fire insurance, windstorm insurance, water damage insurance, robbery insurance, fidelity bonds, etc. In the second class comes protection against claims arising from injuries or detriment sustained by others because of the existence, operation or maintenance of your property or enterprise such as employers' liability and workmen's compensation insurance, general public liability insurance and others.

Of all forms of insurance, fire insurance naturally has the greatest interest for you because of the fact that the fire insurance interests have devoted so much effort to the subject of fire prevention. Within the memory of many here, this great work of reducing the fire hazard has developed, and those identified with the fire insurance business have been the greatest factor in its progress. In most communities where fire prevention codes are in force the same have been taken in whole or in great part from the standards established by the fire insurance companies' fire prevention engineers. Our modern fire-resisting buildings incorporate in their specifications ideas which have grown out of the experience of the insurance companies through the observation of many conflagrations. The insurance interests maintain laboratories for the testing and demonstration of materials and devices for fighting and resisting the spread of fire. A great labeling and approval system has grown up which guarantees to those constructing or equipping buildings that the materials and devices so approved are of maximum efficiency.

The architect is confronted with the problem of giving maximum utility at minimum expense in addition to the many other problems of his profession. To those considering new construction, remodeling and structural changes, I urge that they submit their plans and specifications to the insurance man in order that he may have an opportunity to see that every detail is in accord with the latest fire protection standards. This should be done because by adherence as closely as possible to these standards the minimum fire insurance rate can be secured, and—more important in the case of

the hospital—you have the satisfaction of knowing in advance that every method known to the science of modern fire prevention engineering has been employed. You may regard the efforts of the fire insurance interests in this direction as selfish or as altruistic, as you prefer, but the fact remains that all are concerned in the effort to reduce the appalling fire waste in this country and I can conceive of nothing more deplorable than a preventable fire in an institution such as a hospital. These remarks apply with equal force to the recommendations of the fire insurance man on conditions in your hospital in the way of care and maintenance, as the same affect the possibility of the occurrence of a fire or the rapid spread of the same.

Fires occur in hospitals. The remedy? Improved construction and greater attention to fire prevention and fire protection. In the ideal, no fire in a hospital should spread beyond the floor on which it originates. That means modern fireproof construction, which is not always possible. In any event, those areas containing the greatest fire hazards should be protected if possible by automatic sprinklers.

Every one here should procure and read and keep for reference a booklet published by the National Fire Prevention Association in April, 1920, entitled "Fire Prevention for Hospitals, Asylums and Similar Institutions" by H. W. Foster, at that time chairman of the committee on safety to life of the National Fire Prevention Association—which can be had for a nominal fee from the office of the association at Boston, Mass. This booklet contains much information of great value written by a man of broad experience.

In most jurisdictions the use, in a fire insurance policy covering hospital properties—both buildings and contents—of a percentage contribution clause, is either mandatory or optional. The meaning and operation of the contribution clause is commonly misunderstood. A policy covering a building and containing the 80% contribution clause is simply subject to a warranty that the amount of insurance is at least equal to the percentage indicated by the value of the building. Thus a building worth \$100,000 insured under fire insurance policies with the 80% contribution clause requires that \$80,000 fire insurance be carried and if you do so you are taking the risk of the last \$20,000 only yourself, or figuring that no fire will damage the building more than 80%. But if you fail to do so, you are taking a part of the risk in *any* loss no matter how small. If you hold policies with the contribution clause in them it is incumbent upon you to see to it, first, that you know the insurable value of the property, and second, that you purchase insurance equal to that percentage, commonly 80, which is required by the terms of your policies.

Insurable value is the cost to replace the building with material of like kind and character and with labor at its present level, less depreciation however caused. The replacement value can easily be determined and no doubt many men can be found who will agree in a given instance within a few dollars. Depreciation, however, is a matter of compromise. This may appear difficult to you but in most jurisdictions the contribution clause has been held to be legal and equitable and you are therefore dealing, not with a theory, but with a condition which should have the closest attention, or, after a fire, you may find yourselves compelled to accept an amount less than your actual loss.

As I have stated to you, a fire insurance policy is a contract in which the minds of the two contracting parties are supposed to have met and while the courts construe insurance policies closely against the insurance company, there are warranties in the contract which are binding upon you and to which heed must be given. The standard fire insurance policies have stood the tests of the courts and variations from the printed conditions of the policy must be provided for in the riders or forms attached to the policies in the way of privileges or permits. The greatest care must be exercised to see to it that these forms fully meet your needs. Policies covering the same property must be written under exactly the same form lest you find yourself in the position, in the event of a loss, where the companies cannot agree between themselves on the proportionate share which each shall pay.

You say that these are matters for your insurance man to take care of and you have the right to take this attitude, but if you do, it is up to you to concentrate the responsibility and to choose your man well.

The development of the insurance business has been concurrent with the marvelous development of our country. New forms of insurance have been offered in response to real or fancied needs for the same. In cases where the demand proved to be small the forms of coverage are withdrawn. Where the demand continues the forms remain. Thus protection can be purchased against damage by water, rain through open windows, water from plumbing, steam and hot water pipes, conductors and down spouts, etc. Damage by wind-storm, hail, earthquakes, strikers and rioters, discharge of water from sprinkler equipments, damage from the explosion of boilers and fly wheels, pressure tanks, etc., loss from the break-down of electrical equipment, are now all covered by appropriate forms of insurance.

The liability of the hospital is one of the most interesting subjects to be considered from an insurance point of view. Most workmen's compensation laws afford no exemption to the hospital as

far as its liability to the employe is concerned and therefore this comparatively new form of insurance is commonly carried. Of the payments made by insurance companies in this connection, a very substantial part are for medical and hospital bills. Employes of a hospital injured in the course of their employment are naturally treated on the premises. It is therefore to your advantage to secure the substantial concession in the rate charge for this insurance which is available in consideration of the exclusion from the insurance policy of liability upon the part of the insurance company for medical and hospital expense. Where the payroll is large, this generally results in a considerable saving in the premium paid for the insurance.

The question of the liability to the general public of the community hospital not operated for profit is an interesting one. In many states, it has been held that contributions to the endowment or support of a hospital cannot be diverted to satisfy a tort judgment. Out of this has grown the impression that public liability insurance need not be carried. Of course I believe in insurance and your reception of whatever I may say will be influenced by your knowledge of the fact that I am in the insurance business. However, there are many logical arguments in favor of carrying insurance of the character carried by other owners of property. In the first place, as a fire in a hospital is a horror, so should a hospital be a safe place for the public to enter. The inspection service furnished by insurance companies brings to your attention conditions which, in the expert judgment of the liability insurance company inspector, are unsafe and the remedy therefor is pointed out. The careful inspection of elevators furnished by insurance companies is of the greatest value as this inspection is something more than that furnished by municipal authorities.

In the second place, on account of the peculiar position which the hospital occupies in the community, it is not sufficient in my opinion that you should rely on the assumption that at the end of a long and expensive litigation a successful defense can be maintained against a claim which has been brought against you for injuries sustained on or about your premises. The average insurance company accepting your risk will upon the receipt of a report of a public accident immediately investigate the same, and, in accordance with the fixed policy, settle the same by negotiation as promptly as possible, perhaps using the defense which you would use yourselves to aid in securing a release without the unwelcome publicity which litigation would involve.

Most community hospitals render, at great expense, gratuitous service to those unable to pay for the same. The thought will occur to you immediately that if someone who could ill afford the

consequences of an accident occurring on your premises under circumstances showing negligence, either by act or omission on your part, should bring their case before you, you would feel at least as much disposed to do something for the sufferer as you would for a patient brought to your door in need of medical and hospital service but unable to pay for the same.

The same principles are involved in the question of whether or not to carry steam boiler and fly wheel insurance. These two forms of protection, in addition to furnishing insurance against loss or damage to physical property, also protect you against claims for injuries growing out of the explosion. The premium charged for both of these forms of insurance carries a heavy loading for the cost of inspection. While it is true that boilers have exploded and fly wheels have burst which have been regularly inspected, there is no question but that the inspection of these objects reduces the chance of failure and the number of accidents.

In connection with steam boiler insurance, all objects under pressure, such as pressure-pipes and tanks, if any, should be included in your policy in order that you may have not only the insurance but regular inspections. Since you are paying heavily for the inspection service it is your right to insist that the inspections be made at regular intervals and to see to it that you receive as many inspections per year as are promised to you when the insurance is sold. The average company guarantees at least two external inspections and one internal inspection of a steam boiler each year, but see to it that you get them. The recommendations for the replacement or the repair of steam boilers and similar objects under pressure are made for your welfare and should so be regarded and carefully complied with, unless it can be established absolutely that the same are ultra-technical or improper for any reason.

I want to say a word on the method of arriving at rates and premiums charged for liability insurance by the companies. Insurance companies may be regarded as public service organizations and this attitude is taken in some states, notably New York, where the rates for compensation insurance, for instance, are fixed by a commission in exactly the same way as rates for electricity, gas, telephone and street railway service are fixed in most states. With or without this supervision, there is a great bureau for the exchange of information and statistics between the companies, which make an honest effort to see to it that as far as practicable each class of enterprise is considered by itself and the premiums are compared with the losses and expenses to fix an equitable basic rate. The individual risk is considered by allowing credits or imposing debits from the basic rate based upon the experience in the way of losses developed by the individual risk. This system may have its weak-

nesses but is the result of a sincere effort to establish the proper relation between risks and is the best system which has ever been devised.

I am not going to argue the question of whether or not the insurance companies make exorbitant profits. You can easily satisfy yourselves on this point. Personally I have never been able to interest myself in the stock of any insurance company as an investment. It is undoubtedly true however that the conception that large profits are made by insurance companies is responsible for the belief existing in the minds of the members of any one group that the rates charged that group are excessive. Out of this idea has grown the mutual idea. It would be possible, for instance, for all the community hospitals in the United States to associate themselves for the purpose of insuring each other against any or all of the risks against which insurance is commonly bought from stock companies. The inspiring motive back of this idea would be to save money. I presume that more money has been lost by individuals by engaging in a small way or as a side line in lines of endeavor with which they are entirely unfamiliar than in any other way. Most of us know all of the pitfalls of our own lines of business but will enthuse at one time or another over the possibilities of other lines where our knowledge is less complete.

It is not enough for you to know, or for anyone to be able to demonstrate to you on paper that you can successfully organize and operate a limited mutual to furnish insurance against your liability to the public, for instance. A demonstration that an idea is theoretically sound does not necessarily carry with it conviction that it is workable or desirable. The practical phase of the situation is that insurance is a business of taking risks—something entirely foreign to the business in which you are engaged, of rendering a great service—and if you are to operate successfully a mutual insurance organization limited to your particular line, it is reasonable to assume that it will be necessary for you to devote to it at least as much time, effort and expert training as is given by those connected with the stock companies whose results must be surpassed if you are to justify embarking in this departure.

Insurance is offered by stock companies protecting hospitals against claims in consequence of error, mistake or malpractice alleged to have occurred during the course of a patient's treatment. This of course is an entirely different subject from ordinary liability insurance which protects against accidental injuries growing out of the maintenance and operation of the premises. This insurance is not commonly carried, nor in my opinion is the need for the same great, as the law affords great protection to physicians, surgeons and hospitals making an honest effort to render professional service. I

can understand how, should the need for protection be generally felt, a mutual organization among hospitals might be desirable. The difficulty in this case perhaps would be in securing a representative membership.

In conclusion I wish to present to you the thought of the insurance business as a service. Give to some one qualified to handle your insurance problems the time that you devote to your other affairs of equal importance. Satisfy yourselves that you have what you need and that your house is in order in this important department and claim and get from the insurance business the service which it stands ready and willing to render.

PRESIDENT BACON: I feel that this is a most important subject, and if anyone would like to ask questions of Mr. Watson, they now have an opportunity.

MR. DANIEL D. TEST: I am very glad indeed that this subject has been brought before us. I presume it is more important, especially the fire hazard reference, than we have been accustomed to thinking. There has come to my mind a little story that I want to tell, of a woman who had just buried a grouchy old husband. She received a letter of very tender sympathy from a friend and it ended by saying "What was the complaint?" The widow's answer was "No complaint at all; everybody was satisfied"; and then she also added "Loss fully covered by insurance." It is absolutely impossible for us to have hospital loss fully covered by insurance, and so it seems to me that the question of eliminating the fire hazard and having some adequate system of protection is a very important one, and I want to suggest whether the committee might not use Mr. Forster's report as a basis on which to work out some satisfactory protection plan for hospitals. Fire drills do not appeal to the average administrator, but it seems to me very important that some suitable system of procedure in case of fire should be evolved, some system that would be of benefit to all of us.

MR. INGERSOLL BOWDITCH: I would like to say that in Massachusetts the laws are such that very few of the public hospitals are carrying liability insurance or malpractice insurance. I would like to ask Mr. Watson if the general liability insurance in any company covers property damage? I have a case at the present moment where a visitor fell into some material which was outside of the hospital buildings and damaged his clothes. He wants to know if the hospital will pay for his clothes, and, as I understand it, our liability insurance policy only covers accidents to the person and not to his clothes. Now, is it possible to cover both?

MR. WATSON: In answer to that, the newest child born to the insurance business is property damage liability insurance in connection with all sorts of operations. You know if you operate your

automobile so that the result is damage to property, you have or can have insurance covering that feature only; recently, however, a complete rate schedule has been elaborated so that if a person is injured on or about your premises or the elevators in the way of damage to property, you can procure that insurance, and of course these things, reduced to the last analysis, are questions of price. If I could sell it to you for a penny, you would all scramble onto the platform to get it. Have the proposition presented to you by your insurance man and then weigh it in the light of the fact that when it comes to damage to property you can never be overwhelmed in any one accident. The insurance companies are endeavoring to remove from the minds of the people the impression that they cannot buy what they want. One big thing we are thinking about is a serious damage, instant, overnight, all at once; you are not worrying over what will happen to you over a period of years or months in the case of minor claims such as claims for property damage.

MR. STEPHENS: I would like to ask Mr. Watson how much or how extensive is group insurance among hospital employees? We some time ago put it in and I should like to know on what basis it is paid for—how large a proportion does the employee contribute and how much does the hospital pay? We have group insurance on a basis where the hospital pays one-third and makes deductions from the employees' salaries for the other two-thirds.

MR. WATSON: Frankly I cannot answer your question. I had in mind that group life insurance should and would interest the management of hospitals, but I cannot say at this moment whether such cases as yours are rare, average, or becoming the general practice.

PRESIDENT BACON: We will have at this time the report of the committee on education of the hospital executive.

REPORT OF THE COMMITTEE ON THE EDUCATION OF THE HOSPITAL EXECUTIVE

A meeting of the committee of the American Hospital Association on the training of hospital executives was held at the Massachusetts General Hospital, Boston, at 2 p. m. on October 5, 1923.

Present: Dr. F. A. Washburn, chairman, Dr. C. G. Parnall and Dr. W. C. Rappleye.

Doctor Rappleye was appointed secretary of the committee.

There was general discussion of various aspects of the training of hospital executives, the methods used in the past for preparing men and women for the field, the present opportunities for training and possible methods for the future. Among the points mentioned were:

1. The need of arousing interest on the part of prospective executives through articles dealing with the opportunities and problems of the hospital which can be placed in the hands of students and others qualified for the work.

2. The need of crystallizing the problems of the field more clearly for presentation to universities, foundations and others who might be interested in these activities.

3. The need of research in the field relative to the factors of hospital needs and distribution, to relationships of the hospital to other health agencies and to medical and nursing practice and to sound plans of organization and finance.

4. The need of developing courses for advanced work in hospital administration working toward the development of a group of future leaders in this realm of health services.

5. The need of developing courses for graduate nurses and other groups which would be less formal than university courses and which would undoubtedly contribute much to the present demands for qualified hospital administrators, particularly for small hospitals.

6. The need of working out a better understanding between the medical profession and the hospital in relation to community health and group responsibility in matters of this character, leading to a better understanding between the staff and the hospital administration.

7. The wisdom of placing any possible training course for hospital executives in either the graduate school or the school of public health, if such exists, rather than in the medical school, it being the feeling that many of the courses in sociology, public health, business science, economics and other phases of hospital administration can be better mobilized in a school of this character than in the medical department.

8. The need of informing hospital trustees of the opportunities and responsibilities of the hospital in community health and of the necessity of visualizing their function in terms broader than those of managing an institution only.

The committee feels that its number should be increased to include representatives of several other groups of activities and it is recommended to the President and Trustees that this committee be increased by the addition of Dr. Frank Billings, Dr. David Edsall, Dr. Winford Smith, Dr. William Darrah and Dr. A. K. Haywood.

Respectfully submitted,

F. A. WASHBURN, M. D., Chairman,
W. C. RAPPLEYE, M. D.,
CHRISTOPHER G. PARNALL.

DR. W. C. RAPPEYE: Dr. Washburn is unable to be here today, so I have been asked to present very briefly the deliberations of the Committee on the Training of Hospital Executives. This committee met first in Boston on October 5th, so that the activities have been rather brief, and up to the moment we have been attempting to define our own functions as a committee of the Association.

It is obvious that neither this committee nor the Association can undertake the training of hospital executives. Obviously, that is an activity which must be taken up by one of the educational centers or some other agency that can carry on training work. We do feel however that our functions fall into three general groups, the first and most important being that of attempting to stimulate a small number of centers in the country to establish a training center for executives and other personnel groups of the hospital. It is true of course that the training of a hospital executive is going to be only a part of such a center. It is clear that no training center can ever go very far in the field without having developed at the same time a center for research in all the problems of the public health and community relationships of hospitals. The problem is not simply that of establishing a training course for hospital superintendents—there must be built up a fund of information and a bureau for service to communities, universities, states and other groups.

The second general group of functions of this committee probably fall into the advisory group, in that it could be hoped and would seem reasonable that universities establishing such courses might turn to this committee for advice as to the best method of training executives or developing the field of hospital administration itself. If we are to do that, it is necessary that the committee first mobilize the best opinion it can and crystallize present-day tendencies in hospital administration and project the probable demand for the next twenty years and anticipate it in part by the training and development of those men and women who are to take charge of hospitals. The hospital with its present-day facilities for diagnosis and treatment of early disease, for the care of patients and the training of personnel, is rapidly becoming an exceedingly important agent in public health and in preventive medicine.

The third and most important feature of the training of hospital executives and other groups of personnel, is the question of the personnel itself; the working out of courses is a relatively simple matter. The development of investigation hinges upon the personnel, and one of the things this committee may be able to do, or hopes it may be able to do, is to secure and stimulate prospective students in hospital administration. That will come particularly through publicity, possibly through getting in contact with university centers, medical schools and other groups that are liable to produce or have

available men and women qualified for hospital administration, and to get in contact through the Association particularly with the field itself, so that there may be provided opportunities for those already in the field who want further training. That in general is the deliberation of the committee. It is still only in a formative stage. There will probably be additions made to the committee, and at the moment this committee has made its preliminary report to the President and Trustees of the Association and our next step will be dependent on the action they will take.

REPORT OF THE DELEGATES TO THE AMERICAN CONFERENCE ON HOSPITAL SERVICE.

This report is the report of your delegates to the American Conference on Hospital Service. Each institutional member of the Conference, of which the American Hospital Association is one, sends two accredited delegates, and the body of the conference is made up of these two delegates from each of its institutional organization members. Your delegates to the American Conference on Hospital Service wish to report as follows:

We have attended two meetings of the Conference in the past year. The first was a meeting primarily of the Trustees at Atlantic City last September called for the purpose of considering suggestions for helpful activities for the Conference other than the Hospital Library and Service Bureau. The second was the regular meeting of the Conference in Chicago March 5th and 6th.

At the meeting in Atlantic City a suggestion made by Doctor Goldwater appealed to the Trustees strongly as one leading promptly both to a real service to all types of existing hospitals and also to a permanent forward step in the development of the field.

The suggestion of Doctor Goldwater followed and was based upon a discussion of the intern situation by Doctor Dodson and others. In this discussion it was made clear that the need for interns now exceeds the present supply or any possible future supply of recent medical graduates. This necessarily means that the intern is about to disappear permanently from the smaller hospitals and from those not meeting the requirements of medical education of which the intern or fifth year has become a part. As yet an unusual salary or unusual conditions may attract a few interns outside these educational or approved hospitals, but this number is rapidly growing less.

This situation presents a problem that in the interests of hospital patients must be solved notwithstanding existing tendencies leading to its accentuation. Ten states now require that the fifth or intern year be spent in approved hospitals before the diploma is granted. The indications are that this policy is sound, practical and is rapidly acquiring the universal support of both the medical edu-

cators and the students themselves. Other states now seem certain to enact these regulations, which will mean that in the near future only approved hospitals can hope through salary or any means to secure any interns at all, and there won't be enough medical graduates to provide a proper supply for all of these.

The Council on Medical Education and Hospitals of the American Medical Association is developing the organization, the standards, the regulations and the position to function properly and universally in determining the hospitals which shall participate in the fifth year of medicine or the intern year, or in other words to establish the approved list. At present a minimum of one hundred beds is required for general hospitals, and properly so. Internships in hospitals of more than one hundred beds are growing in number faster than the number of medical students and this will without doubt continue, precluding a reduction in this minimum. On the other hand, eighty-one per cent of the hospital beds and therefore of the patients in the hospitals of the United States are in institutions of less than one hundred beds, all of which will soon be permanently below the intern line.

In this the best interests of the people and the proper development of the hospital field are involved; for one does not need to argue before this group the strengthening and bettering of hospital service to patients through the presence and work of interns. Hospitals usually must be small before they can become large and the majority of the institutions outside of the large centers of population must necessarily remain small.

Doctor Goldwater made it clear that, considering these facts, the best interests of the hospital field as a whole—especially of the small hospitals and of the majority of hospital patients—require that a satisfactory substitute for the intern and for intern service be promptly made available to all institutions. The Trustees became convinced that this problem could be solved through the training of non-medical clinical and laboratory aids as Doctor Goldwater proposed, also that the Conference was the proper organization to lead in this work. The work will require the cooperative efforts of organizations representing medical education, of medical licensure, of the hospital groups and of the nursing groups, all of which are now represented in the Conference.

One of the functions of the Intern Committee of the American Hospital Association will be to contribute to and to co-operate with this study and work. This committee will prove a substantial contribution from the American Hospital Association to this activity of the Conference as a study of the hospital internship itself is an essential preliminary. There is much that hospitals can do which will add to the value and productiveness of the intern year, all of

which will contribute to the development of the intern substitute. This is the problem of your Intern Committee.

It was also argued by Doctor Goldwater that the use of non-medical clinical aids in the larger teaching hospitals would not only be to the advantage of the intern and the hospital but would make fewer interns necessary in these hospitals, thus releasing a part of their present quota for service in other hospitals.

The Trustees of the Conference came to unanimous approval of Doctor Goldwater's suggestion and plan but the approval of the delegates was necessary for final action.

At the meeting in March a half-day's program was presented as a part of the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals and this was published as part of the proceedings of this Congress. In addition to this program the delegates held a business session in the Hospital Library and Service Bureau. The recommendations of the Trustees that the Conference take up the promotion of the education and training of non-medical hospital clinical aids and laboratory assistants was presented and after proper discussion this was approved as a policy. This work will constitute the second concrete activity of the Conference and funds are now being raised for its promotion.

At this meeting a budget was presented and approved as follows:

1. *The Hospital Library and Service Bureau:*

For full-time director, assistants, maintenance, provision for adequate growth, increased service and incidental expense, \$30,000 annually for three years. . . . \$ 90,000

2. *The Promotion of the Education and Training of Non-Medical Hospital, Clinical and Laboratory Assistants:*

For full-time executive secretary, assistants and other necessary expenses, \$20,000 annually for three years. 60,000

Total budget for three years. \$150,000

The budget for the promotion and training of non-medical hospital clinical and laboratory aids has not as yet been fully raised, so the committee to lead in this work has not as yet been named. Considerable thought and study has, however, been given to preliminary plans and to basic policies. It is hoped that the required sums will be forthcoming in the near future.

All of you have become so familiar with the work of the Hospital Library and Service Bureau that this activity of the Conference needs no special mention. The report of its work presented to you

by its Director tells the story and a visit of anyone to the library in Chicago or to its headquarters and exhibits here in the Exposition will answer any questions.

Respectfully submitted,

S. S. GOLDWATER, M. D.,

A. R. WARNER, M. D.

TEAM WORK AMONG HOSPITALS,

By William J. Raddatz, President, Cleveland Hospital Council,
Cleveland, Ohio.

Like our great nation, the hospitals have developed by patient germination into the great institutions which we have today. As our country developed from the primitive state of hewers of wood and carriers of water to our gigantic, involved system of commerce and finance, so have our modern hospitals been evolved from humble boarding houses for the sick to great institutions of ministry to the sick and of education for the doctor and the nurse.

Just as the humble mechanic, at first working alone, saw the needs of a larger community and a broader civilization demanding the expansion of his manual tasks into a manufacturing problem and eventually into the great corporations with their boards of directors, so the hospitals, growing from mere places of housing the sick to our great modern hospital system, have recruited the business or lay man and woman to assist in the solution of their involved business problems.

Although the duty of the doctor and nurse may be more intimate to the hospital, the duty of the trustees is equally sacred. Now what is the meaning of hospital? By hospital I suppose is meant the public, charitable hospital incorporated directly or indirectly for the prime purpose of taking care of the sick. Such hospitals are quasi public institutions. They are exempt from taxation, and because of their charter are under direct obligation to the State and to society to properly perform their functions. The trustees or members of the controlling boards of such institutions are in a position of "trust" responsibility. They are the administrators of charitable funds and in this capacity have the responsibility to the State and to society. Within the limits of reason, they should give the same conscientious attention to the business of the hospital as to their private business.

It is incumbent upon them to understand what are the functions of the institution which they represent. They should know that the functions of a modern hospital are:

1. The care of the sick.
2. The training of doctors and nurses.
3. The study of disease (scientific investigation and research).
4. Community social service with due regard for the causes of sickness, the prevention of sickness, the follow-up of discharged patients and the supervision of their convalescence.

My predecessor, Mr. Arthur D. Baldwin, former president of the Cleveland Hospital Council, epitomized the functions of the modern hospital very adequately when he said: "The modern hospital is an institution of organized society provided by a community to care for the sick and the injured. It is merely a medical means to a social end, and that end—public welfare—must never be forgotten.

"Hospitals more than any other social agency accumulate the evidence against the dangers to life in the community, dangers from contagion, from ways of living and from industry, and they must feel the responsibility to study this evidence and become leaders in the progress of preventive medicine. The idle convalescent is of no more value in the community than the bedridden and scarcely less expensive to support. It is not only charity and social service, but also sound economy for a community to supervise convalescence through proper institutions, and to make it such that the patient can return to his work the sooner.

"The modern hospital of today must continue to give to a community scientific care for its sick and must afford opportunities for medical and nursing education and for the study of disease. But above all it must, through its social service work and through co-operation with all other effective community social agencies, give a watchfulness over public health and the results of work that should add to the days of life, industry and happiness of its citizens."

Trustees must recognize that hospital development should not only be individual along the lines just enumerated, but also in relation to the best interests of the community as a whole. This is the day of group action and there are certain definite principles for the expression of group interests which should be understood and applied in the hospital field. Modern hospitals are factors in public health work. As such they are maintained by tax-collected funds or by private philanthropy. Whether public or private, they are subject to certain rules and regulations and are bound in some degree by laws of supervision and control at the hands of the State. They have definite relations to local and state government in both

administrative and legislative capacities. While they have certain obligations to meet, they have interests in common to protect. To meet these obligations and protect these interests, they have been slow to organize. In some states where there has been an opportunity to secure financial assistance from the state, they have been well organized for this purpose; but it may be safely said that they have been unusually backward in organizing to keep themselves (their trustees and controlling officers) informed, through a central organization, of all business, legal, and public health matters and particularly legislation—local and state—decisions of courts and rules and regulations issued by government affecting their financial interests and their fundamental responsibilities. This may still be considered a serious situation.

The Hospital Council movement is making progress in several cities. Today we find a dozen or more state hospital associations, and the national hospital interests are finding increasing expression in the development of the American Hospital Association and the Catholic Hospital Association. The further development of group hospital interests in city, state and nation can well occupy the serious attention of our hospital leaders.

In Cleveland the trustees and executives have sought to apply all of these principles by association with one another through membership of their institution in the Cleveland Hospital Council. Some of the results of this team work are as follows:

1. Better hospital accounting—both financial and patient; classification of patients (pay, part-pay and free), with monthly and annual reporting of the number of such patients and the number of days' treatment for each group; adoption of the principle of "hospital cost for hospital service rendered"; application of this principle by common agreements not to rent private rooms to persons who can pay for them at less than "cost" and further application of it by agreement not to sell hospital service to State insurers or self-insurers at less than "cost." One of the greatest accomplishments of the organized hospitals in Ohio has been the individual agreement between the State Industrial Commission and the individual hospital for service rendered to the injured on the basis of "cost."

2. The enactment of legislation for the furtherance of the common good through hospitals.

3. Organization of the Purchasing Service. The great purchasing bureau of the Cleveland Hospital Council was conceived in the mind of one of Cleveland's great business men, a trustee of the Council. This bureau is doing an annual business of \$850,000 at a saving to the community, which after all makes up the deficits.

4. Organization of the Collection Service. Our collection bureau not only collects about \$80,000 annually in old and poor ac-

counts, but also indexes the hospital dead beat; the "rounder" who moves from one hospital to another. This bureau operates for about \$10,000, thereby assisting the community in reducing its overhead by making the man who can—pay.

5. The conduct of the Hospital and Health Survey. This survey, also the outgrowth of business methods applied to hospitals, has aided materially in showing the needs of hospitals to the community and the community's needs to the hospital.

6. Hospital trustees and executives in Cleveland further co-operate through the Community Fund and the Welfare Federation in its centralized money raising. I consider the preparation of hospital budgets and their submission to a Budget Committee, together with the making of appropriations by the Community Fund Council on recommendation of the Budget Committee, and the co-operative money raising of the Community Fund, to be one of the best examples of team work in the hospital and welfare field on record.

In conclusion, allow me to leave this thought with you. Roosevelt said: "Every man owes some time to the upbuilding of the profession to which he belongs." Therefore, let us all—whether we belong to the hospital by profession or only by adoption as trustees—give some time to the upbuilding of this noble enterprise. Let us strive not only to further our own hospitals to which we are attached, but also to aid in the great work of all hospitals. Let us strive and work generously and magnanimously; let us live in such a way that the world may know we have lived and that posterity may bless the day that gave us life.

REPORT OF COMMITTEE ON CONSTITUTION AND BY-LAWS

By Richard P. Borden, Chairman

Your constitution requires that notice of any proposed amendment shall be given at a general session of the convention to be acted upon at a subsequent session. Your trustees have recommended an amendment to provide means by which hospitals in foreign countries may have some advantages of the proceedings of this Association. They believe it is one of the functions of the American Hospital Association to preach the gospel of healing to all parties interested throughout the world. You are all accustomed to examining your per capita cost. I wonder how many of you have applied that test to the work of this Association? If you examine the data which is now before you, you will find that the cost of your office work, divided amongst all classes of members, amounts to

\$12.80 per member. If you add the cost of other activities of the Association, you will find the cost per capita to each member of all classes, including all classes, amounts to \$17.88 per member. In addition to the actual expenditure of money, a membership in this Association has the value of the tremendous amount of work that is done voluntarily and which is exhibited in the reports which you have already begun to obtain day by day. Not only that, but the reports in themselves bespeak a tremendous amount of work through the very efficient service of your Executive Secretary and his staff. If any of you are representatives of a hospital which is not an institutional member, I wish you would give the compliments of a fellow trustee to your trustees and say that while they may not be dead they are sleeping, because any business man who is not awake to the opportunities of an investment like this with so much profit, is certainly somnolent if not moribund. Now this is the proposed amendment which will be acted upon at a subsequent session:

Section 5. Any person or organization not residing or having a usual location within the Continent of North America may become and remain a Subscribing Member of the Association upon and during the payment of the minimum annual dues of an institutional member as determined by the By-Laws and during such membership shall be entitled to all publications of the Association.

Acceptance of such dues may be refused at any time by vote of the Trustees in their discretion.

The figures that I have given you were gathered for the purpose of trying to ascertain what would be a fair charge to those who receive the publications of this Association, and certainly any institution in a foreign country that becomes entitled to receive the product of the work of this Association can easily afford to pay that amount, while their payment of this amount will materially reduce the overhead cost of your Association.

PRESIDENT BACON: This resolution will be voted upon Friday forenoon.

The session then adjourned.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, October 31, 1923, 2:30 P. M. Miss Lulu C. Graves in the Chair

DIETETIC SECTION

CHAIRMAN GRAVES: This is the third meeting of the Section on Dietetics of the American Hospital Association. We are to have today a report of the work of two very important committees.

REPORT OF COMMITTEE ON CANNED FRUITS AND VEGETABLES

(For text of report see General Session, Tuesday, Oct. 30, 9:30 A. M.)

MISS GARRISON: I would like to know just the status of standards on vegetables. Are the specifications for vegetables as clearly defined as they are for fruits? I ask this question for the special reason that none of our salesmen for canned goods seem to know anything about vegetable specifications.

MR. CLARK: About the only information that you can get on vegetables is that issued by the Department of Agriculture at Washington. That requires a great deal of study and time to get out what you want. We have, unfortunately, only a few vegetables exhibited at the booth, through the fact that the samples from Michigan have been lost in transit, and the ones from New York State, part of them, have been lost. But I can probably answer a great many definite questions that you might want to ask about vegetables. Is there any particular vegetable that you have in mind that you want to know about?

MISS GARRISON: I would like to ask about peas.

MR. CLARK: Peas are graded in six different sizes—very few of the No. 6's. They run No. 1, No. 2, No. 3, No. 4 and No. 5. The Fancies come in Nos. 1, 2, 3 and 4 in the sweet wrinkled variety, and in Nos. 1, 2 and 3, in the Early Junes. That is due to the fact that a sweet wrinkled pea develops a little larger than the Early June. When you get to a four in an Early June, it is termed an Extra Standard. Sizes, as a rule, are sifted out, so they don't go into the ungraded, but are made in a grade all their own. The Telephone pea will usually grade a 5 or 6. That is a distinct variety, all its own, a very economical pea to use, simply because there is a lot of food value there, and still it is soft, and very palatable. I might say, in canning peas nowadays, they don't pick them

in the way they used to. You are used to going out and picking the peas off in a pod. In the large canning factories today a pea expert can pay for his services in visiting just three or four fields, probably. A pea will develop over night to a stage where they will not get certain grades if they are not picked immediately, so that if the time in the afternoon happens to be 3 o'clock when the pea expert thinks that the peas have developed to the point that he wants them to be picked, the force must go to the field at that time. They are all pulled up by the vine, taken to the factory, and put in a large shucker and they go through just like a threshing machine, the pods and the vines being thrown off one side just as the threshing machine throws off the straw and the chaff, and the peas come out the other side. Then they start on the No. 1 sift, and then they are graded from that on down to the Sixes, unless they grade the Nos. 1 and 2 out and leave the rest to what they call an ungraded pea.

MRS. HAWKINS: I would like to have some suggestions on how one can buy corn and have some idea what they are getting?

MR. CLARK: There is a long story to corn. Corn is the hardest vegetable that there is to process. What you have in mind is, that you would like to buy No. 10 cans of corn, but you have never found the quality in a No. 10 can to be what you have wanted. That, I think, is the reason you have asked the question. The reason for that is that up until the past two years the canners of corn have only canned the high grades of corn in No. 2's, due to the fact that in processing they couldn't process a No. 10 can of corn clear to the center. There is what is known as a sperm in corn, which is the hardest bug (if you can call it that) to kill that there is that grows on any vegetable. In the old methods of processing, they would set the can down in the open vat and drop the corn down into it, and it was motionless. Under the system that they use now the can goes to the filler, the top is put on the can, then it goes into the processing machine. The can is constantly moving, and they can register any length of time that they want to on those machines, so that it can be 8 minutes, 12, 24, or any length of time that it takes. This can is constantly rotating so they can get a more even heat on all sides and the top and bottom than they could before; so it is possible now, or should be possible, to get good corn in No. 10 cans, for that reason.

There is another thing I might mention here—that all of you have probably opened corn and seen that black scum on the top, or around the edge of the can. That is absolutely harmless. There is absolutely no reason why you should hesitate in using that corn at all, because that is caused by this sperm in the corn not having

been thoroughly processed—there is still a little life there. This causes the action on the tin which turns it dark. I was in the National Canners' Association laboratory and was rather amazed when one of the chemists opened a can of corn and ran his finger around the top and put this black stuff in his mouth. I thought he had a lot of nerve. But he assured me there was absolutely no poison or anything there that would harm him. Does that answer your questions? Or, do you want to know what kind of corn to buy?

MRS. HAWKINS: There was a point also in my mind as to what different methods the trade have in specifying different kinds of corn. What advantages there are, for instance, in Maine corn over Wisconsin corn, and is there a difference in quality, other than processing?

MR. CLARK: There is a Fancy Corn, and an Extra Standard, and a Standard. The Standard is not good. The Extra Standard may be fairly good. The Fancy could be a whole kernel or it could be Maine style. That means that your corn is nearly whole, with the exception of just the part that attaches to the cob. The other is mashed more or less, which, of course, makes it more easily digested than the whole kernel.

MISS GOUDY: What should you look for in getting a good quality of canned tomatoes?

MR. CLARK: That is a hard question to answer. I will have to answer it in two or three different ways. The first thing that you might have to consider is the season, or the weather, or the kind of weather we had during the tomato season. Particularly you will remember in most sections of the country this year you had very cold, chilly weather for the month of August. Your tomato, as a rule, for canning, starts to ripen some time between the 15th and the 30th of August, and then they keep coming for the rest of the month of September. They usually expect to finish by the latter part of September. This year, however, the weather wasn't right, and the canners didn't open until some time in September, because the tomatoes did not ripen. That is the first thing that you would have to keep in mind, because you may not be able, in a season of that kind, to get good tomatoes any place. That is, you wouldn't be able to get a good tomato color, and that is what you want. You may have a very fine flavored tomato, but you wouldn't have the color. The next thing that you must do, if you want a Fancy tomato, is to specify a Fancy. A Fancy tomato, however, may have been sold to you as a Fancy, and it might have been a Fancy when it was packed. If it happened to be that the tomato was shipped for a long distance, or it happened to be delayed in transit, that tomato may not be termed a Fancy when it is opened, due to the

fact that, a tomato being approximately 85 per cent water, the jar and motion of the railroad car they are shipped in will cause that tomato to break down of its own weight before it is delivered to your institution. So it is very hard, unless you know where the tomatoes were shipped from, and under what conditions they were canned, etc., to really say whether the jobber has given you what you have purchased. One good rule to follow, however, I should think, in purchasing tomatoes, would be to try to have your jobber furnish them to you from a cannery near to your own section, or your own institution, if possible, which would relieve, to a certain extent, the one condition which might cause your tomato to be broken up.

MRS. HAWKINS: Are there any specifications as to the weight of any canned goods that shall be contained in a No. 10 can?

MR. CLARK: There are, but they don't mean anything.

MRS. HAWKINS: I have found that by explaining that we pay the difference of fifty or seventy-five cents per dozen on a difference of two or three pounds in solid pack, I have been enabled to save considerable money, although it wouldn't show according to the price per dozen. I wondered if that specification could be included.

MR. CLARK: The weight of the cans may be all right, but it doesn't mean anything unless you specify the drained weights of your cans. If you specify a drained weight content, then it means something. Otherwise, not.

MRS. HAWKINS: That is the weight that I referred to.

MR. CLARK: There is no standard specification. Even the Government will not definitely state a standard weight. They give you a variation of weights, that they should weigh so much, and I think you will find that all packers try to make them weigh up to what the Government says. The Department of Agriculture, if you will write to them, I am quite sure would send you a pamphlet which would describe all of the various weights which they have defined. But there is nothing definite about it.

MISS GARRISON: Do you think there is any advantage to be gained by placing spot orders?

MR. CLARK: I don't think anybody buys futures to save money. If they do, they are buying them under a bad impression, because I don't think that you save a whole lot of money, if you figure up your investment, the extra space which you use in your store room, etc. There is only one reason for buying future canned goods, and that is to maintain a quality in your institution. If there is anybody here that can explain to me why they should do that, other than for the purpose of maintaining quality, I should like to ask that

question myself. There are times that you do save money; there are other times that you lose money, and unless you are very well up on the market and follow that as a business, I don't believe that the average buyer in a hospital can determine in their own mind whether market conditions are right to do that. I think we are in a better position to do that in the Central Purchasing Department than the average hospital—not that we have any superior knowledge over what the hospitals have, but that is our business, we devote our time to it, while the hospital people have so very many varied duties that they cannot go into the situation as deeply as we can. You must have a lot of your doctors telling you that you should feed spinach to your patients, and they don't want to eat it because there is sand in it.

DR. MCGOWAN: Is it possible to get a good grade of canned spinach?

MR. CLARK: Yes, absolutely.

MISS MIDDLETON: Can you get spinach in a can that is as good as fresh spinach?

MISS KIRKPATRICK: The vitamine contents are not destroyed by cooking. As far as the vitamine content is concerned, it is exactly the same.

MRS. HAWKINS: I use fresh spinach when I can get it in good condition for about the same cost per portion as for the canned, and can arrange the rest of the menu so my employees can take proper care of the spinach. I don't usually buy it if cost exceeds \$1.50 per bushel, and not if it is not in first-class condition. If not in very good condition, I prefer to leave it in the commission house and use my fancy canned spinach off the shelves.

MR. CLARK: How does your commission man determine whether spinach is good or not, even though it is fresh? By that I mean, spinach is not good that is full of sand, and he doesn't know whether the spinach is sandy or not, he doesn't know where it was grown, whether that field where it was grown was sandy or a field where it was loamy. If you do get spinach that has sand in it, you know yourself it is almost impossible to wash it out.

MRS. HAWKINS: In the particular locality that I come from we have had no sandy spinach, or else we have been very successful in getting the sand out, because we use it frequently and we haven't noticed any sand.

REPORT OF COMMITTEE ON FOODS AND EQUIPMENT
FOR FOOD SERVICE

(For text of Report see General Session, October 30th, 9:30 A. M.)

DR. MUNGER: Madam President, ladies and gentlemen: We are all, I am sure, very grateful to Dr. Nuzum for this excellent report—the best report of a food committee that I have ever heard in the association.

I consider the Association unusually fortunate in the selection of Dr. Nuzum as chairman of this particular committee, because of the opportunities afforded in his own institution. You may or may not know that Dr. Nuzum has charge of quite a model institution on the Pacific Coast, which, contrary to the rule that applies to most hospitals, has a great preponderance of medical cases. Perhaps, where most of us have 80 per cent surgery, his hospital handles 80 per cent of medical cases. He told me that they now have forty diabetics under treatment. The routine feeding of our surgical cases, while it is a problem, is not the subject that is puzzling dietary departments most and this part of the work is not developing as rapidly as the special diet work in medical cases.

A word concerning Dr. Nuzum's statements in regard to central tray service. Central tray service is an interesting subject which has progressed considerably beyond the "idea" stage. It is a method that has come to stay in many institutions, and which will be put into many of the newer ones that are built. The main difficulty, without considering all the pros and cons, of which I have heard, is the question of getting the food hot to the patients. That is one of the biggest problems of any dietary department. With central tray service we must, therefore, either have some artificial method of heating the food and keeping it hot until it reaches the patient or have an extremely speedy service from the central dietary to the patient.

It occurs to me that this speedy service, which would perhaps be the simplest way of handling the central tray service, depends in very great measure upon the personnel of the dietary department. I think we are inclined to talk too much about the new fangled machinery and architectural arrangements for the dietetic department, and not enough about the people who are to operate that department. We superintendents, perhaps, are not careful enough to see that our dietary departments are sufficiently manned to do the work that they are called upon to do. If we are going to leave the carrying of the trays and the serving of the food after it gets to floor diet kitchens entirely to the student nurses we will not get proper results. We will more nearly approach perfection if we

supply the dietary department with enough paid helpers to assist in this work, and with enough assistant dietitians. Even in a small hospital it is quite necessary to have some experienced and educated person to supervise the work in the floor diet kitchens, if they exist.

The data that Dr. Nuzum has collected on labor saving machinery is interesting, because it comes from our midst rather than from manufacturers. We get many fine stories from manufacturers of these machines, as you all know. It will be interesting if these studies can be elaborated and we can have still more definite information as to what these machines will do for us. One point which might be emphasized is that in addition to doing work more economically, certain of the labor saving machines have been shown to do the work better than if it is done by hand—an important point. Given proper architecture and efficient personnel, central tray service is desirable and preferable.

Regarding personnel of the dietary department—I have closely observed the same type of food service (that is, main kitchen with floor diet kitchens) in operation in two institutions. With architecture and problems very similar, the results were quite different. In the one instance, the service was unsatisfactory to patients and everyone. In the other, there was very seldom a complaint regarding the food and the staff physicians agreed that the dietary department was the best they had encountered in any hospital. The cost of uncooked food in the second case was less per patient than in number one. The amount of money paid out in salaries was a little greater in the second case; however, the efficiency of administration was undoubtedly better. We must guard against the tendency to blame upon our building or our limited budget, difficulties which are in fact due to inadequate or inefficient personnel.

The question of life of hospital equipment is surely worthy of attention. We would all find it interesting to look up, for example, the number of dishes we have issued during the past three years. Most of us have storeroom records which will tell us. Compare this with the number of dishes we have in use. If, as the doctor states, dishes ordinarily last about three years, we should have a complete replacement of all our dishes within three years. Are we exceeding that? Is our breakage too great? If so, what can we do to prevent it?

My experience regarding cooking utensils favors aluminum ware, decidedly. When I was chairman of the food committee I conferred with a number of dietitians in various localities, and I received an almost unanimous vote in favor of aluminum ware. Heavy ware, even for small utensils, seems absolutely necessary. I question whether it is economical, ever, for an institution to buy light weight aluminum. Few hospitals have all any one kind of

kitchen ware. Probably they have some each of tin, aluminum and granite ware. If they decide, however, upon aluminum ware, it is easy to arrange to make all replacements in that material, eventually eliminating the less desirable metals.

Before I close I should like to mention also the question of hospital gardens, concerning which Dr. Nuzum gave an interesting article in the *Modern Hospital* recently. About five years ago I tried to start a hospital garden on a ten acre plot that was adjacent to our institution and I was laughed at by a number of people. I was not at all certain myself of the advisability of such a venture. The plan did work out satisfactorily, however, and if there is time, when Dr. Nuzum closes, I wonder if he will say a word about his experience with hospital gardens. Many institutions have land which could be utilized for this purpose.

CHAIRMAN GRAVES: Dr. Nuzum, will you tell us about your gardens?

DR. NUZUM: I haven't been so long in California that I am going to give the climate credit for what the garden has done. But it has been a success—it has been a success, first, because we have been enabled to raise vegetables that cannot be bought in the open market, and, in the second place, because we have fresh vegetables every morning, at least one vegetable per day, throughout the year. And even in other localities you would be surprised how much you can prolong the vegetable season and how much earlier you can have them, if you are raising your own vegetables. The advantage of having fresh vegetables and having them when you want them is a great help. In addition to these advantages, we have found we could make combinations of different vegetables, some that are not frequently used, that were very tempting. We use some vegetables, such as kohlrabi, which is not well known, but which is a good vegetable, and there are quite a list of those things, if you will take the trouble to look them up, and they are all easily grown. So while it looks like somewhat of a venture and somewhat of a speculation, if you will go into it just reasonably carefully, I think it can be made a success.

A CONSIDERATION OF DIETS FOR PATIENTS RECEIVING INSULIN

By Dr. Franklin Adams of the Mayo Clinic, Rochester, Minn.

It is hardly necessary to mention before this audience some of the facts that led up to the present situation in the treatment

of diabetes. You all know that about two years ago a group of physicians at the University of Toronto introduced a new medicine for the treatment of diabetes. At first it was thought by a number of people that this insulin, this new medicine, was a cure for patients who had diabetes, and it was simply necessary for them to have an occasional injection of this material and they could promptly forget all about their diabetes. Unfortunately, that wasn't true from the standpoint of an actual cure; but from the standpoint of taking a patient who was bedridden, and hopelessly sick, you might say, and placing him on his feet and making him an active member of society, insulin accomplished everything that was hoped for.

This was not as a result of insulin in itself, however. The result was because the insulin was used in conjunction with an extremely careful diet, and this is the part that has to be exercised in connection with the dietitian. Without the dietitian diabetes would not enjoy its present status, so to speak, as being a disease that can be very well controlled. The patient who appeals to the dietitian with the idea of being reduced because he or she may be too heavy, or with the idea of being increased in weight because he or she may happen to be too slender, presents a problem to the dietitian that certainly must be solved, but the solution merely adds to their comfort; the same holds true in a somewhat more important sense in a patient who has an ulcer of the stomach or duodenum; but the patient with diabetes who appeals to the dietitian for help comes to that dietitian with a question that means that patient's life. Without the solution of that problem the patient cannot go on, and it is impossible to over emphasize the importance of the dietitian in this connection.

Another feature of the important work that the dietitian has to accomplish in connection with diabetes is that she must take up the teaching of the diabetic patient, and these schools that have been established in different clinics throughout the country are meeting with great success. Dr. Williams in Rochester, and Dr. Rosenthal, Dr. Allen, Dr. Joscelyn and Dr. Sanson at Santa Barbara, Dr. Nuzum, and so on, have all done this with great success. The dietitian plays a very important part here, because she, in a measure, becomes the teacher of these people. They come to the hospital and learn the fundamental facts that are necessary for them to carry on. They equip themselves with the knowledge that allows them to keep healthy.

Our treatment at the clinic has been comparatively simple. We have recognized four principles in connection with the dietary feature of treating patients with diabetes. We have limited their intakes of starches and sugars, limited their intake of protein, we have not allowed them food comparable to that allowed to the normal indi-

vidual, that is, it has been somewhat less, and, in the fourth place, we have tried to strike a proper balance between the fat substances in the diet and the sugar substances in the diet, the so-called endo-ketogenic ratio. With these four principles in mind we have tried to adapt diets in connection with the treatment of diabetes with insulin.

I might mention in this connection that to us food is just as important a medicine in diabetes as insulin itself, and it must, therefore, be given with just as great accuracy as the insulin. If any of us were to appeal to a physician, if we happened to have, let us say, a treatment of the heart, and that physician gave us digitalis or some such remedy in a bottle and told us to take some now and then, without any specific directions as to how much to take or how often to take it, I think that our confidence in that physician would weaken just a little. In the same sense, food is just as important to the sufferer with diabetes as digitalis would be to the patient with heart disease.

CHAIRMAN GRAVES: The work that is being done now with diabetes has had a very great impetus since insulin has come to be so widely used. It has taken a very prominent place in all the discussions. The work being done at Rochester, Minnesota, is extremely interesting, and we are very glad indeed to get such information as we have been receiving this week regarding the work done there.

ADAPTING DIETS TO THE INDIVIDUAL

By Miss Bertha M. Wood, East Northfield Seminary,
East Northfield, Mass.

We know now why Adam took the apple from Eve. The sight of it made his mouth water!

How many times do we accomplish the same result when we prescribe or serve diets to out-patients?

There are reasons why we are interested to attain this result:

First. To save waste in our hospitals. Possibly this should be enumerated last, yet we may be more interested in adapting diets if we realize that we can do so not only without extra expense but also with the cost actually reduced.

Second. We serve food today for its therapeutic value, therefore we are anxious that the patient shall receive the diet not only as ordered but as served, and consume it. Even cases not on special diets—that is, non-medical and surgical—would make a more rapid recovery if their diets fitted them.

Third. The out-patient or ambulatory case is usually quite ready to make menus as prescribed if it does not necessitate obtaining new and unknown foods.

Some effort has been made to standardize metabolic diets—low protein, carbohydrates and fats—also in the edema cases, low sodium chloride diets.

As these are ordered by the physician and the prescription given the dietitian, her knowledge of organic chemistry must be sufficient to cover the food content of many raw materials and she must be able to combine these in cooked dishes native to the patient.

In diets where the amount of milk is increased or where a low protein diet is prescribed we must remember that milk is not only used as a drink and cooked in foods, but by our Syrian, Turkish and Armenian friends milk is taken much more frequently fermented and eaten on foods or as a relish in the form of matzoon or koumiss. The children especially eat it also in lobin.

When a physician wishes to secure the diets that his patients have had he frequently asks if they have drunk milk and sometimes finds they have not. If he knows the characteristics of the various nationalities he will often ask if they have *eaten* milk and find they are having sufficient.

Meat is a general term used in this country and usually to us suggests beef, but to northern Italians it suggests pork or ham, to southern Italians fish and to the Near East peoples lamb; therefore they prefer these kinds of protein foods rather than a beef stew or a steak.

We need more knowledge in food chemistry about many vegetables little used or never used by us but very common among our new friends from across the sea. The Italian celery called anis, green and red peppers, the sorrel of which the Jewish sour soup is made, turnip tops used frequently as greens, and other vegetables, are friends of many people. Yet we are unable to introduce them into diets for lack of knowledge of their composition.

Now what should be our rule for patients? They should eat only what they like but should like what they ought to eat. That's very simple for them, isn't it?

Next, what should be the rule for the hospital dietitian? She should, if possible, learn what have been the foods most used by her patients and then change the "general diet" to fit the patient.

It is more blessed to please the patients than to hear complaints and not see results.

Meeting adjourned.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, October 31, 1923, 2:30 P. M., Dr. T. K. Gruber, Chairman

ADMINISTRATION SECTION

CHAIRMAN GRUBER: The program as outlined in our schedule is a program of discussion of certain reports which have been made by committees. The reports have already been for the most part printed and distributed, so that one and all have had an opportunity to check over the reports and be prepared for the discussion of these important topics. I might say in starting that I would like to make some suggestions to the organization and to the Board of Governors as to the matter of these reports. Last fall I spoke to my friend and former instructor, Dr. Warner, and told him I did not think very much of part of his literary program, so he came back at me and said if I did not think very much of it he would let me try and see how I could run one, and so I finally said, "All right, I would." I found a lot of difficulties in getting a program of this sort arranged, and getting proper discussion arranged for the reports. In the first place the reports should have been completed and turned in to the organization, I believe, according to a resolution of the governing board of the organization, by September 1. About ten days ago I received copies of two or three of the reports and the day before I left for the convention I received a copy of another report. It seems to me that if we are going to take chairmanships of committees, we ought to try and get them in shape so that a proper digestion of the report could go on and careful discussions be made. It is the object of the Secretary's office and the President that these reports should go down as something official, a final resume of the subjects discussed, and I had hoped that the reports might be got up and discussed in such shape that we could give them out as final reports. That is the object of having such committees and such reports.

REPORT OF THE COMMITTEE ON FORMS

(For text of the report see Proceedings of General Sessions, Monday afternoon, October 29th.)

DR. A. C. BACHMEYER, CHAIRMAN: The report submitted this year has practically nothing to do with forms, and insofar the committee's name is probably a misnomer, for since our submission to you in 1921 at West Baden of the rather voluminous report concerning forms, we have had referred to us from time to time a number of communications that dealt more with methods than with forms,

and so we have been transformed into a clearing house for advice on methods of recording.

This year, we are making no changes in the recommendations that were made two years ago pertaining to forms. That does not mean that changes in that report would not be proper. I think there are suggestions that many of you could make which would be well worth while considering, and that changes in that report might be made. At the same time let me call your attention again to the committee's declaration at that time, that while we submitted a large volume of forms, our chief interest did not lie in the use of those particular forms in the hospitals, but we were desirous of having the principles enumerated in that report recognized and adopted. I think that in that same year, 1921, the convention went on record pertaining to certain maternity statistics; at any rate, during the early part of this year a questionnaire was received as cited in this report from the Boston Lying-In Hospital concerning maternity statistics, and the first part of the report (which you have no doubt all read) pertains to maternity statistics. The answers which we gave to that questionnaire—outlining the method of recording stillbirths, where to draw the line between stillbirths and premature births, or between births and deaths, and whether both child and mother should count as separate patient days—are self-explanatory.

The last part of the report sub-headed "Current Financial Reports" deals with a recommendation pertaining to a budget system and the careful financial record that is necessary in operating an institution on a budget system. I do not know that you want this report read, because you have all had an opportunity to read it, and, unless otherwise ordered, I think I have completed my statement.

MR. W. D. CLARK: There is one thing in connection with this Report of the Forms Committee, especially as regards the financial or accounting side, which possibly we may overlook, and that is, that no amount of forms will get the results that the director or superintendent of the hospital wants unless it is operated by a competent accountant or bookkeeper.

The second point is that the simplification of bookkeeping machines in the last few years has put it within the grasp and scope of even the smaller hospitals, by which I mean those of perhaps 90 to 100 beds or larger. I have personally seen these machines of different types in operation in several hospitals in the West and without exception they have given great satisfaction; they greatly decrease the volume of work that has to be done by making duplicate copies. For example, on the earnings they will make a copy of the patient's statement, the patient's ledger, the earnings or accounts receivable control, all at one operation. On the expenditure side it will give a statement for each department, which can be taken off

and given to the department head monthly ; will make the ledger account of each hospital department and will keep an expenditure control, all at one operation.

As I have said, the low cost of these machines now and the simplicity of operation have made them very useful to many of the hospital superintendents and directors, and the committee I know has some forms along this line, if any of you are interested.

DR. BACHMEYER: Might I ask whether these reports are to be recommended for adoption to a general session, or what is the procedure that has been outlined?

CHAIRMAN GRUBER: The procedure that has been outlined has been to recommend the report to a general session for adoption or continuance of the committee for further report.

DR. BACHMEYER: The reason I raise that question here is that very often during the year Dr. Warner's office received communications concerning the Association's policy on various questions. Now if the various reports submitted by committees are adopted by the convention, it gives him a basis on which to make his replies. He can say then that the contents of a certain report of the committee represent the policies of the Association and that information can go out to various hospitals asking for data, and if we adopt the reports, they then become policies of the Association. I think it makes the report of more value to the various institutions in the country.

CHAIRMAN GRUBER: I might ask, then, if some members of the organization will make a motion as to the disposition of this Third Report of the Committee on Forms.

A MEMBER: I move its adoption.

Motion seconded.

CHAIRMAN GRUBER: Might I say I believe it necessary to move that this be referred to either a general session or the Board of Trustees?

MR. F. E. CHAPMAN: I think the motion should carry a recommendation that this group approve of the fundamental principles of the report.

CHAIRMAN GRUBER: Then may we ask you to make a motion that the members here approve this report for final adoption?

MR. CHAPMAN: I will be very glad to add that as an amendment to the motion.

A MEMBER: I hardly see where this meeting can take action unless they approve the action the Board of Trustees have already taken. I do not see why there should be a conflict between this section and the Board of Trustees. I think it would be proper to move the adoption of the report by this section and I so move.

Motion carried.

REPORT OF THE COMMITTEE ON LAUNDRY EQUIPMENT AND SUPPLIES

(For Text of the Report see Proceedings of the Session of Thursday morning, October 30th.)

DR. W. P. MORRILL, CHAIRMAN: I expected to have this report discussed by someone besides the maker of it. I desire to have it torn to pieces. There are many who have forgotten more about laundry and textiles than I know. I will say, however, that the Laundry Section of the report is more or less a continuation of the work of last year, except that we have gone into a little bit of the technical details of the washing process, pointing out what dirt really is and why certain processes are necessary to remove it. But, realizing the importance of the quality of the goods that are to be washed, the committee during this last year put rather more study on that than on the washing process itself, and after getting some literature together decided that it would be well to point out some of the technical details of the manufacture of the various textiles. This has been bitterly objected to by one or two manufacturers, who rightly claim that after 30 years in the business they themselves are not experts on textiles. However, the committee did not presume either to qualify as experts themselves or to qualify anyone else as an expert, but simply to point out some of the basic things in the form of concrete data which do enter into the quality of the textile, in the hope that those who perhaps had gone into the matter less thoroughly would appreciate along what line they must reason or study a textile to get some idea of its quality. We have pure food laws—Canada has pure textile laws, pure fabric laws. There is no protection except his own judgment to the buyer of textiles in this country, his own judgment and the probity of the firm with whom he is dealing. The Laundry Association is very much interested in this matter, because when a piece of goods goes to pieces which has been sent to a commercial laundry, the laundryman is charged with ruining it, usually, whereas it may have been ruined in the factory in which it was made. In fact this is very often the case.

As a result of that, there has been recently some joint action between the Laundrymen's Association and certain manufacturers: I think, to be specific, they are the manufacturers of cotton underwear. The shrinkage was of sufficient importance that the Laundry Association took it up with certain manufacturers and have arrived at an agreement or an arrangement whereby certain manufacturers are living up to certain specific standards prescribed by the laundrymen so that their products will at least leave their hands in proper condition to stand not only wear and tear, but laundering.

and not only the laundryman, but the customer as well, is getting the protection.

It has occurred to me, in fact I have been thinking this phase of it over for something like a year, that a combination of us who are interested in a larger way in textile quality—that is to say, the American Hospital Association, the Hotelmen's Association and the Laundry Association, whose interests are practically the same—could bring sufficient pressure to bear on certain textile manufacturers to get a certified, or censored, or standard (whatever you wish to call it) quality, and this was my purpose in taking the matter up with the officers of this Association; but I believe before we do any such thing it would be wise to get the temper of the Association on the matter, whether they feel that such action is needed or not. It would be unwise of course to undertake any such thing unless the Association was going to be impressed with the fact that the results obtained were to be of real value. It may be if something should come of this whereby some joint committee could be formed or some test could be made which would recommend certain articles, that the Association would respect that opinion. In other words, that is the only way in which we could bring pressure to bear on the textile manufacturers, unless we went to some sort of legislation, and, gracious only knows we have too much legislation now; it can be reached in another way and that is one thing I would like to get some reaction from this section on today.

DR. HAROLD W. HERSEY: The paper that has just been distributed to us I think is exceedingly difficult to discuss before a meeting of this sort. It requires careful study on the part of the members interested, and in addition, it contains such a great amount of detail that only by careful reading may it be properly absorbed. There are several features in it which I believe could be well emphasized.

Any well-planned business procedure requires, of course, that we know definitely what we are trying to do, and unless one knows the process by which they are trying to wash their laundry goods and unless they know the procedure through which these goods must pass, one cannot expect to have good results. By this paper which the committee has put before us, the various steps through which the laundry passes have been clearly shown, and in addition it has shown the chemical processes taking place in the laundry before goods can be returned to the ward in a serviceable condition.

The equipment of the laundry which the report mentions in some detail has made rapid advance within the past few years, the same as all other hospital procedures. I believe one of the biggest steps which have been taken in the advancement of the equipment is the two or three very good presses which are on the market at the

present time. These are motor controlled, and with the labor situation such as it is, with the difficulty of securing competent help, anything we can do to make the process in the laundry easier and to lessen the steps which the laundry workers have to pass through, is well worth while. With these new presses which are on the market, the tedious procedure of stepping on the levers and the strain of locking and releasing is entirely done away with, and I believe it is a tremendous step in the right direction in improving the labor conditions of the laundry. The new extractors on the market I believe are particularly well worth while, and furthermore, the new washers which have been improved upon in size and control are decidedly well worth looking into.

The textile question seems to be a tremendous problem. Whether or not further action by this group would aid in standardizing the products of the different textile manufacturers I am not in position to say; but I do know that in Massachusetts, for instance, principally because of the interest shown in laundering processes by the National Laundry Owners' Association, steps have already been taken to interest the textile manufacturers of Massachusetts in a more uniform type of output, and such interest is bound to eventually bring some results. There is no use buying a product which is not going to stand up to hospital requirements. And while there are various steps with which everyone is familiar to determine whether a piece of goods is really what it is represented to be, I do not believe the ordinary tests to which a buyer or purchasing agent can put the product are sufficient, and therefore we are in turn forced back to either having a better understanding with the textile manufacturers or to taking some steps to produce that interest in manufacturers. I therefore feel that it is a very important step to try and procure some recognition by a Board of this sort of the importance of standardizing and making more uniform the products for which we are dependent upon the textile manufacturers.

DR. FAXON: I would like to ask Dr. Morrill if the committee, in their studies of the laundry question, can give information as to the point of the hardness of water reckoned in so many grains per gallon, where it is an economy to install a water softening system?

MR. SIMPSON: If I may offer a suggestion, I have recently attended two national conventions of the Laundry Owners. I believe your organization could cooperate with them in securing better textiles, but I think you will get quicker action through a committee with power to fix your own standard, in other words, pass upon fabrics that you find desirable and that will answer your purpose. The manufacturers must then conform to what you think will fill your needs.

MR. RICHARD P. BORDEN: I happen to come from a place where a good deal of the textile products used in hospitals is manufactured. The manufacturers have nothing to say about the kind of cloth that you use; they will make whatever kind of cloth you desire made; they vary the count of the yarn, the width of the cloth, the number of threads, in accordance with any number of threads, any width that may be specified by the buyers. The buyers from manufacturers are principally the hospital supply people from whom you buy your goods. Now if the hospital can pick out a most desirable type of gauze, a most desirable type of weave and weight for sheets and other cotton supplies, you can always get something that will conform to the standards you set. It does seem to me that it would be worth while for the American Hospital Association to ascertain what the most desirable description of these different cloths used in the hospitals is, and then to tell the people that you purchase from what you want and they can always get what you want from the manufacturers, because the manufacturers are practically making these cloths to order.

PRESIDENT BACON: For Mr. Borden's benefit, I will say that one of the purposes of our Committee on Hospital Supplies, which Miss Rogers is chairman of, is to work out this very problem; but before we can standardize on bed linen, we have to standardize the beds; probably in another year we will get to the linens.

MR. F. E. CHAPMAN: Mr. Bacon is to be commended for his optimism. We have been attempting to standardize bed linens for seven years and are no further ahead than when we started. This is a little bit beyond the point of discussion of this meeting, but the trouble with the standardization of all things in hospitals is that hospitals themselves will not be standardized. The question of whether we should have a 72x99 or by 108-inch sheet almost broke up the Cleveland Hospital Council. The only answer to this thing is that you must buy on specification, and I think Dr. Morrill's suggestion of having some means developed of getting a more uniform quality in our goods is unquestionably true; but I do not think you will get it through the manufacturer; I think it is within ourselves to determine what we want and insist on getting it and instead of buying a name, buy quality.

CHAIRMAN GRUBER: I might say one word in reply to Mr. Chapman's statement. I know that in the purchase of our linen supplies at the hospital, very often we are guided by what we are able to buy at the time we want them. We might want a particular grade of sheeting and are told we can get it in such and such a time, and the trouble is we have to have sheets and have to take, a lot of times, what we can get and not what we might want.

DR. MORRILL: To reply to Mr. Chapman first—I will agree he is correct in theory. Eighty-five per cent of the members of the hospitals of the country are small hospitals and without some central buying organization for them, in which, as he says, even in the Cleveland Hospital Council they had trouble—now, if we were to take a large number of small hospitals in isolated places, we would have just that much more difficulty and trouble as long as human nature remains as it is; so the buying by specification is hardly feasible for the very large number of small hospitals. However, the publication of brands or of the fact that any number of brands conform to some standard within reasonable limits, would be of very great practical assistance to those buyers who have not the time nor the facilities to buy by specification and see that the goods delivered are up to specification. I do not know how practical the idea is, but I believe there is enough merit in it to make a try at it. Now, Dr. Faxon's question as to the amount of hardness in water, which would justify the installation of a softening plant in a hospital: I regret very much that there has not yet been published a paper on that very topic which I wrote some months ago for the *Modern Hospital*, but I understand it is to be out in the next issue, and in that paper this problem is brought out. Most hospitals depend on a city water supply which is from an open source and in which the hardness varies very greatly from time to time. My own water supply runs from 40 to 320 parts per million; that would be 34 grains; 17 parts per million is equivalent to one grain, or one degree, as it is sometimes called, but there is a wide variation. The other side of it is this: The laundry is not the only element to be considered in the installation of a softening plant. Not only the hardness but the character of the hardness enters into it in its effect on boilers, both from the repair standpoint and the fuel standpoint, and its effect on piping. There is one particular piece of pipe in my plant which I have to replace every ninety days. It is the last piece of pipe in the return of the hot water circulation. That is entirely due to the character of the water and it would be largely eliminated with soft water. That happens to be a local peculiarity of our water in the Red River Valley. Others have different problems of the same character.

I cannot tell you offhand the exact soap loss per grain of hardness per gallon of water, but I do know as a rough rule that when your water is drawn from a deep well which has a constant hardness but not as high at the maximum, and usually not as low at the minimum, as an open source, there is usually sufficient permanent hardness to justify a softening plant if you are heating by steam, because you get a saving in your boiler room as well as in your laundry, and the saving in the laundry is not alone in the saving in

soap, etc., but much more in the saving of the linen itself, for the reason that the lime salts (which are the most troublesome from the laundry standpoint) precipitate in the linen and make it harsh and that harshness is not alone an aesthetic objection; it is a real, practical objection, because that deposit makes the individual thread brittle; the fact that it feels stiff is proof enough of that. The loss of flexibility and pliability of the individual thread, when it becomes stiff and hard, naturally makes it break easier. In other words, the life of your linens alone is a very large factor. The appearance is another, and the actual economy in the boiler room and in the washing process is another. I would not attempt to answer your question offhand further than to say that well water nearly always will justify it.

CHAIRMAN GRUBER: The Chair will entertain a motion for the disposition of this report.

DR. BACHMEYER: I move that the report be accepted and referred to the general session for adoption.

Motion was seconded and carried.

REPORT OF THE SPECIAL COMMITTEE ON GAUZE RENOVATION AND STANDARDIZED DRESSINGS

(For text of the Report see the Proceedings of the Session of Tuesday morning, October 30th.)

DR. A. B. DENISON, CHAIRMAN: In the presentation of the report at the meeting yesterday, I tried to make clear what I considered to be the function of the committee, namely, a committee designed primarily to get information and try to correlate that information into something of a recommendation which might embody the opinions of the largest possible group of hospital people. While the report does not comprise the collective opinion of many hospital people, it is presented as a suggestion that is made by a very limited group of people, and since it is only a suggestion I think that all we can hope for is that it will serve as a sort of excuse, if necessary, for further discussion and information. I think that the function of the committee is to collect this information, getting it from as many sources as possible, and then try to deduce, from the collective information, some general principles that may apply. That holds as to gauze renovation as well as to standardized dressing.

The exhibit in Booth 161 is merely to raise one or two points. The first point is the large number of varieties of various dressings and I would like to call your attention to the fact that all those dressings fall into three major groups, namely, the flat folded dressing such as sponges, and the folded and rolled, and those made up with some filler. Also note, that in those three groups the variations are

largely of size. With these points in mind, does it not seem possible to some day, through some means, devise some set of standards which will reduce to a fairly marked extent the variety of dressings? If we can reduce the variety of dressings, then we can give our friends, the manufacturers, the opportunity of figuring on the cost production of these dressings. That is the absolutely essential step before we can say whether standardized dressings are practical or not.

So far as gauze renovation is concerned, it is a question again of information, what the conditions are in other hospitals and whether it fits. To come back again, the whole question, as I see it, is one of getting information.

DR. HERMAN SMITH: In speaking to the chairman of this committee yesterday morning, he explained to me, just as he has done to the group, that his committee was attempting to gather information. It seems particularly unfortunate that he should get such a poor response from hospitals, when this information is being gathered for them; if there is any merit in gauze standardization and renovation, all will be benefited. It seems to me that the committee should be given better co-operation in their work of gathering this information, for they apparently have not obtained enough responses to report any definite findings. I think it should be emphasized that the outline of the organization of the gauze-room, in the report, is the committee's conception of what, in all probability, is an ideal room. It is an open question as to whether any number of hospitals would want to adopt all the various parts of this gauze-room procedure. It is my thought that the committee wishes particularly to emphasize gauze renovation, and because of that it seems unfortunate that so many other items were noted in the gauze-room program. I think it would have been better to have limited the report to that portion of the gauze-room which dealt particularly with the renovation of dressings. The question of the economy of renovated versus non-renovated gauze was not discussed in great detail.

In discussing renovated gauze, we usually consider that the introduction of new gauze into the cycle takes place in the operating rooms and that all gauze used is of the "folded-in" edge type. I would like to submit for the committee's and perhaps the section's consideration the question of using only renovated gauze for operating rooms and new "rough edge" gauze throughout the rest of the hospital. A hospital with which I am familiar had been using a very good type of gauze for its operating rooms and sewing the edges of its laparotomy sponges and pads. These sponges and pads were constantly re-washed and re-used in the operating rooms. A much cheaper type of gauze was used for the rest of the hospital and the dressings were made up with rough edges. In other words, a

4x6 dressing was cut 4x6 and not a very much larger size in order to turn in the edges. An attempt was made in this hospital to renovate gauze. The operating room continued its old system, but throughout the remainder of the hospital a better type of gauze was purchased, and as the smaller dressings which were used with rough edges were too small for renovation, larger dressings with turned-in edges had to be introduced. In this hospital it was found after about two or three months that more gauze of a more expensive type was being used for the renovated dressings than was formerly used for non-renovated dressings. This, of course, is only the experience of one hospital. I would like to know whether other hospitals have had similar experiences. This hospital naturally reverted back to its non-renovated system, and its gauze consumption for 300 beds, with a fairly active operating service, averages about 250 yards a week. I feel that the committee should be congratulated on its work and should be encouraged, in its endeavors to gather information, by the co-operation of all hospitals.

DR. GEORGE A. MACIVER: Nearly twenty years ago, under the direction of Dr. Washburn, certain investigations were carried on at the Massachusetts General Hospital in connection with gauze renovation. As a result, Dr. Washburn instituted the practice of reclaiming the gauze in the Massachusetts General Hospital and was the first to put this into effect in any hospital, so far as I know. That practice has been continued to the present time with absolute satisfaction not only to the administration but to the clinical men as well, and was instituted without any considerable outlay of money for equipment and carried on without imposing any particular task upon the organization or personnel. To show you how that has worked out, I can do no better than give you figures showing the cost of gauze renovation. In the year 1922 we reclaimed in the hospital approximately 500 pounds of gauze each week. Expressed in terms of yards, five hundred pounds represent something over ten thousand yards. The cost of reclaiming this gauze was \$58.56; \$44.00 of this amount going for wages and the balance, \$14.56, covering the cost of material. This latter item takes into account the cost of soap, water, steam, electricity, repairs, depreciation, overhead, etc. It brings the cost of reclaimed gauze to a little over half a cent a yard, or, to be exact, \$.0054. Reclaiming as we do five hundred pounds a week, the grand total for the year is 546,000 yards, which if purchased new would cost approximately \$13,500.00. When reclaimed it costs \$2,948, making our net saving in the year, as we figure it, \$10,211.00. If we have been able to save that much in one year, and the practice has been in operation a little over nineteen years, you can see that it has effected a very substantial saving.

MR. E. E. DICKSON: As a representative of Johnson & Johnson I was asked to come here more to talk about the standardization of sizes of gauze than the laundering of gauze. The laundry problem is something we know little about.

Before we can go ahead with standardized dressings we have got to know what the hospital wants. In the booth downstairs I looked over the dressings and I should say there were about 200 different kinds. They were not only of different sizes but they were made from different weaves of gauze. It seems to me that if you want to make a beginning on this standardization of sizes you first want to decide what grade of gauze will be best for each individual dressing. If you are going to wash your gauze, as the preliminary discussion would indicate, you must use a pretty good grade. I believe last year you decided that 24x20 mesh was the minimum weave which could be laundered satisfactorily. But if you do not want to wash your gauze, and still want to standardize your dressings, why not select a more open mesh of gauze and say that it will be the standard weave for unwashed dressings?

To solve any problem of this sort, there are three different parties who must work together. In this particular case they are the manufacturer who makes the gauze, the doctor or nurse who uses the gauze, and then finally the committee that draws up the specifications—if they do not co-operate and act together, nothing can be accomplished. Speaking in behalf of the manufacturers, I am sure we are all willing to do our part, only we want to know first what you want us to do. Then we assure you we shall co-operate with you in every way that we can.

MR. H. R. LANE, LEWIS MFG. CO.: In considering what I might say that would be a contribution to this gathering, I have been obliged to reach the conclusion that my rather complete ignorance of both the problem of the renovation of gauze and the standardizing of dressings may serve its purpose in that I shall probably make some statements which can be very quickly combated by many of you and to that extent will help the discussion and throw some light on the problem.

Before expressing my opinion as a manufacturer on this problem, I would like to pay a tribute to Dr. Denison and his committee for the work they have done in the last year or two. I have watched that work with a great deal of interest, and I heard the report last year and this year and it looks to me very much as though Dr. Denison and his associates on that committee knew they had something that was good for hospitals—perhaps not good for all of them, but good for many of them—and I would like to express the further opinion that among your groups there are probably a very great many who agree absolutely that theoretically at least the reno-

vation of gauze is something that every hospital should seriously consider, and that the standardizing of dressings theoretically is a pretty proper thing to attempt. If that is a proper deduction, what has been the difficulty? Why has no further progress been made? And when I ask that question, I am not assuming that great progress has not been made, because I believe it has, but I do believe Dr. Denison and his committee feel that greater progress is to be made and very much greater progress, for, after all, gauze is not being salvaged, I think, generally by the hospitals of the country and certainly great progress has not been made in the standardizing of dressings, either within the hospital or by the manufacturers.

I want to again emphasize the fact that my point of view on this matter is purely that of a manufacturer and not of one who is familiar with the inside problems of the hospital; and looking at it wholly from that point of view, I want to define terms which you use by giving them the names by which we know them. Now, renovation is purely and simply salvaging. Every efficient up-to-date manufacturer has his salvage department and large quantities of paper and cloth and all manner of waste and by-products are sorted in that department and made use of. To steal a rather familiar stock yards metaphor, I might refer to the old saying that the stock yards "take everything out of the pig but the squeal" and make some use of it. Why is it not a pretty fair ideal for the hospitals, if they are in earnest about this question of gauze renovation, to consider the possibility of making use of everything that goes into the gauze but the boll weevil? There are some of us who would like very much to get rid of the boll weevil and perhaps that is the answer.

Standards mean to the manufacturer saving in methods, saving in machinery, saving in inventories, saving in material. They may mean all of those things, or part of those things, to the hospital; but in any case those two terms—renovation, which equals salvage, standardizing, which means saving in expense—are matters which every executive, it seems to me, ought to consider pretty seriously. The answer to this question is two fold; why has not progress been made, or why has not greater progress been made? And how can greater progress be made? It takes some courage for a man who knows as little about the subject, as I do, to suggest how greater progress can be made, but it seems to me there are some indications why greater progress has not been made. As I read Dr. Denison's report made this year, to a layman it looks like a pretty formidable enterprise for a superintendent of a small hospital to go away from this convention with the conviction that if equipment has not already been installed to re-wash gauze it will be done. I can see a good many things involved, a good deal of expense in the equipment, pos-

sibly additional housing, additional machinery and I can understand the hesitancy about going ahead with that thing.

On the other hand, standardizing of dressings seems to me almost necessarily a cooperative enterprise rather than an enterprise which the individual hospital superintendent can undertake to carry through without the assistance of a considerable group, whether that group be national or local. I think the experience in the Cleveland hospitals is a case in point. They have made progress. I think Dr. Denison's own hospital has standardized dressings to a certain extent, but outside of Cleveland and perhaps inside of Cleveland, I doubt that standardization of dressings has gone very far. So much for why greater progress has not been made. How could greater progress be made? And I make my suggestion with the greatest humility because I am conscious that the committee and perhaps the officials of the Association have already foreseen the obstacles in the way of my suggestions or have more likely proposed a safer plan. As a business man with a problem of this sort in which my associates and myself believe theoretically, it seems to me that I should be tempted to make it the job of some one person—the person best equipped by training and by temperament—to study this problem and make himself an expert on it (I am speaking of the renovation of gauze); to study and use all of the experience that has been secured, to start from the point where the committee has left off, (and they have covered the ground pretty thoroughly) and to make all of that experience immediately available to any hospital superintendent who is sufficiently interested to ask for that expert advice. If the American Hospital Association could consistently employ such a person—whether he be a hospital man or a man brought in because by training he is fitted to do that sort of work—would not, in the course of a year or two, greater progress be made on both of these problems? It seems to me that the two problems are pretty closely intertwined. Renovation in all hospitals, large and small, will make greater progress and be more successful, if, along with it, dressings can be standardized. Standardization of dressings, by itself, carries with it many economies if it can be established, with or without renovation. As the representative of Johnson & Johnson has already said, the manufacturers, so far as I know them, are more than willing to put their plants and their knowledge of the textile part of the problem at the disposal of the committee of your Association and to help in any way that they can.

DR. W. L. BABCOCK: One statement has been made here that I think should not go out as gospel. Mr. Dickson stated, not from his own knowledge, but carefully said it was from hearsay, that the minimum mesh of gauze which was susceptible of renovation was 20 x 24 thread. It would be a mistake to have this go out as a

statement of fact. Experience has shown that you can renovate successfully gauze with a mesh as low as 20 x 16. Now if an institution that has not carried out this work takes it up and changes their gauze standards from 20 x 16 to 20 x 24 for the purpose of salvaging gauze, they are not going to show any economy because they are going to pay more for their gauze in the first place. We have found after 15 years' experience in the renovation of gauze that gauze 20 x 16 mesh can be successfully renovated if your pieces are 36 x 18 or 24 x 18 in size.

I did not hear the original report that was made yesterday by the committee, and I do not know whether a statement was made about the final utilization of gauze waste after renovation. After the pieces of renovated gauze have been used over and over again, they reach a stage of raggedness where they are no longer useful for gauze dressings. This waste gauze is saved and finally baled when a sufficient quantity has accumulated. It is then sent to a cotton batting mill in Philadelphia and there made into absorbent cotton. Out of 150,000 yards of gauze used last year we were able to salvage 1,250 pounds of absorbent cotton of a very soft and good texture for use in our surgical department. This salvaged cotton from the final waste gauze is not, in color, a very attractive looking cotton, but in use our surgeons have found it excellent.

Another statement has been made which needs qualification, and that is, that special equipment is necessary in the renovation of gauze. I presume by that is meant special laundry equipment. If you have a modern laundry you do not need any special equipment for the renovation of gauze, and there is no great expense involved in caring for this work. A number of institutions have renovated gauze without putting in special equipment. Where the stages of washing, cleansing and bleaching are properly carried out, our laboratories have found the gauze sterile at the completion of the bleach.

A MEMBER: I would like to ask whether any note has been made on the loss of absorption of pieces by the renovation process? I was somewhat amazed at the statement made by Mr. MacIver that they reclaimed 546,000 yards of gauze. I wonder how many surgical cases he has to use that much gauze and whether that tremendous consumption may be in any way attributed to the lack of absorption after renovating?

DR. MORRILL: Dr. Babcock's remarks indicate that a piece of 20 x 16 gauze could be used 20 times. That might be possible, I suppose, under certain circumstances, though I have no definite figures, and therefore should not perhaps express a set opinion; but I am very much inclined to believe that if you renovate gauze you could not afford to buy less than 24 x 20 and probably 28 x 24,

because the closer the weave the better it stands the mechanical punishment of renovation. The cost of renovation is so small that the added times' use you will get for the gauze will offset the difference in price between the two different weaves.

CHAIRMAN GRUBER: If I may say a word and ask a few questions, I empirically have set up in my own mind that I do not believe in gauze renovation and so I have never gone into the gauze proposition. If I were to go into the proposition, I am afraid it would cost too much to set up new equipment, because our laundry has all it can do now; but the thing I would like to ask Dr. MacIver is, if he could furnish me with a detailed statement of how he arrived at the cost per yard of renovating gauze? The next thing I would like to ask is as to how many yards of new gauze the Massachusetts General Hospital bought during the time the 500,000 yards were renovated? I would like to ask how much new gauze was bought when 150,000 yards were collected for making into cotton? If my memory serves me correctly and I got the figures correctly, I went down to the storeroom last week and looked the matter up, because the City Controller wanted to know why I was buying another 50,000 yards of gauze right away, and I found we had used somewhere in the neighborhood of 160,000 yards of gauze during the last year. We have rather an acute surgical situation, where we have a tremendous amount of dressings. We do not make very many dressings with rolled edges; most of them are small dressings cut for our emergency work on a gauze cutting machine about four inches square, and are used to cover up wounds that have had stitches or some sterilizing fluid or something of the sort put on.

I have always been, as the old saying is, "from Missouri" on the proposition of renovated gauze. Most of the people who have talked here have talked in favor of it and I have heard it talked for a long while and I am sort of bull-headed on the subject and would like to have more definite information.

DR. BABCOCK: My statement was to the effect that we had reclaimed 1,200 pounds of absorbent cotton from an original purchase of 150,000 yards of gauze. I cannot tell you the period through which the gauze was used, but it was somewhere in the neighborhood of a year.

DR. MACIVER: In the matter of cost, how we arrived at cost for renovating our gauze, let me read you this detailed report which I have. We pay a woman for stretching this gauze at the rate of four cents a pound. That, in money, at the end of a week, amounts to about \$18.00. We allow, for the wages of the man who collects the gauze from the wards, \$3.40 a week; for the wages of the man who washes the gauze in the laundry we allow \$7.33 a week; for

the wages of the man extracting, \$4.00; for the wages of the woman who does the sorting in the laundry, \$4.00; for the soap used in the laundry, \$7.56; for the electricity for the water for same, we allow \$1.50; for repairs, interest and overhead, \$3.50. We have charged against the renovation every possible item that could be reasonably charged against it. As to the number of patients we have in the hospital, the hospital proper has a daily average of approximately 450 people. We make use of gauze outside of that in the out-patient department, where we treat approximately 600 patients a day. The out-patient department uses only such gauze as is renovated, which explains why it is we use such a large amount of this material.

CHAIRMAN GRUBER: May I ask another question; have you taken into consideration in figuring the cost of the gauze, what the original cost of making up the dressings in larger sizes, with rolled edges so they can be used, would be over the smaller sizes that might be cut?

DR. MACIVER: No sir, it does not enter into this at all. I have a feeling that that is not a matter of large consequence.

CHAIRMAN GRUBER: You have to pay somebody for the time used in doing it.

DR. MACIVER: That charge is one that may be made against the new gauze as well as the old.

CHAIRMAN GRUBER: The figures I have got are somewhat at variance, I believe. I understood you to say you had about 10,000 yards of gauze pulled a week?

DR. MACIVER: Yes sir.

CHAIRMAN GRUBER: Another individual I was asking about the matter said that a woman pulling gauze could pull about 300 yards a day; that would be about 1,800 yards a week. I simply mention this because I haven't got all the thing through my own head.

DR. HERMAN SMITH: It may be interesting to note definite figures for renovated as compared to non-renovated gauze. Michael Reese Hospital used 8,400 yards of gauze per month, using non-renovated gauze, just previous to its experiment with a renovated gauze. With renovated gauze it used 12,000 yards per month. It must be said in explanation, however, that the renovation of gauze was only tried out for three months. The system was new and not very popular with the nurses, and there is a possibility that some of the gauze was thrown away in the garbage can. In addition to the increased consumption of gauze, it must be considered that an extra person had to be employed in order to pick out and stretch the gauze.

DR. FAXON: I hate to see this question left so much in the air. I think it can be accepted as the experience of some of the larger

hospitals which have started the renovation of gauze, that it is a great saving. In regard to Dr. MacIver's statement about the 10,000 yards: that gives rather an erroneous impression as to just what he has done. That gauze is really counted by the pound and not by the yard. The original dressings are made by cutting up a flat bolt of the gauze, 100 yards to the bolt, and for a number of years the Massachusetts General has used the standard sized dressing that was developed by the Red Cross during the war, and which gives a good sized sponge, one that stands renovating very well and a number of times. As to the exact number of times that a piece of gauze can be renovated, it is impossible to say, but tests have been made by running a black thread into the gauze every time it went through the renovation, and it has run up to a surprising number of times. I think Dr. Babcock was not very far off when he said it might go as high as twenty times. After it has been washed and dried, it is then sent to the place where it is pulled; it is stretched on boards with nails stuck up in it and is handled there by the pound. To try and talk of it in yards is not correct.

In regard to the question of absorption—the staff state that they prefer renovated gauze as far as the absorbability of it is concerned; it is soft and absorbs fluids much quicker than new gauze. I can unqualifiedly say for myself, that I should not think of establishing a hospital without renovating the gauze, provided that hospital was large enough to have a laundry that did all of its own washing and where that work could be carried on.

PRESIDENT BACON: One item in regard to washing gauze that has not been mentioned is—after it is not fit to use for dressings any longer, use it in the power plant for wiping machinery, etc., do not buy any machine waste for that purpose. There is another thing also, that when it rolls up into strings which are difficult and expensive to unroll, save the best of those and use them for mops, etc. It is a small thing, but in the course of a year it saves money.

MR. GILMORE: When I get operated on, I am going to a hospital that uses the old gauze for wiping machinery; I don't want it next to me.

DR. L. H. BURLINGHAM: I happen to be actually from *Missouri*, and I am familiar with a hospital where no gauze was renovated for some years. With the change of administration, the renovation of gauze was whole-heartedly undertaken. Directly after the change of administration, going on figures based on three years experience, six months supply of gauze was bought. During the period that followed, the work of the hospital increased, and yet that six months supply took care of the needs of that hospital for two years. So far as personal contact with the gauze is concerned, I myself have had two major operations, a hernia and an appendix,

and I prefer the washed gauze because it is much more comfortable. I tried them both out on myself.

MR. RICHARD P. BORDEN: Just one other word from the manufacturer's point of view; it is undoubtedly true with regard to the nature of the manufactured cotton fibre, that it becomes softer and more absorbent through the many processes of washing it. It is too expensive to make it return to its original softness after the process of manufacture for original merchantable purposes; but the process it goes through in renovation restores to a great extent the original absorbent properties of the fibre.

DR. A. B. DENISON: In the face of all the comments made by people who are much more qualified to make them than I am, I think it would be sheer presumption for me to say anything further.

CHAIRMAN GRUBER: I will entertain a motion to dispose of this report. I would suggest that the Board of Trustees be requested to continue this committee for further investigation.

DR. BARCOCK: I make that motion.

The motion was adopted.

REPORT OF THE COMMITTEE ON CLEANING

(For text of the Report see the Proceedings of the Session of Tuesday morning, October 30th.)

DR. C. W. MUNGER, Chairman: I will make no attempt to repeat the report which was read yesterday. I wish however to emphasize the fact that it was not a report, that it was a preliminary statement outlining the work that the Committee on Cleaning has to do. Briefly we expect to make a study of the cleaning of floors, of walls, of windows, of rugs, of laundering processes, the care of instruments, washing of dishes and utensils and of room cleaning after the discharge of contagious cases, of the ordinary precaution case and of the ordinary non-infectious case. That is quite a large problem for any committee to attempt. We are extending our activities into a great many departments of the hospital, and we felt that if we were going to make the report on cleaning, we wanted it to be as complete as possible. As I said yesterday, our excuse for appearing before you now is to tell you what we hope to do and to ask you for your assistance and your advice as to how we can best carry on this work.

DR. BARCOCK: As the committee has not made a complete report, it is rather intangible for discussion. It seems to me that the committee, in the course of its work in the ensuing year, might be able to get expert assistance from the manufacturers of the various

commodities which we have to clean. For example, the manufacturers of the various floor materials will tell us what their laboratory experiments have demonstrated as the best cleaning materials for their products. We have learned from experience over a number of years that in the cleaning of terrazzo floors, for example, green oil soap is perhaps the best agent and in the end gives the floor a polish. The composition of congoletum floors composed of rubber and linoleum, we are told should be cleaned only by clear water or a mild alkaline detergent, which must be rinsed from the floor. The same is true with paint. We know from experience that a flat paint takes a different cleaning agent than does a paint presenting a smooth finish, and we know that enamels may be cleaned with agents that have proved efficacious. I do not know how broad the scope of this committee is, but it seems to me they have a function in helping us with polishing materials. Many of you know that various polishing materials have been tried from time to time, and while some have good points, there are a few that have faults. You take a polish recommended for brass and polish a push plate on the wall, and you daub up the wall. Another polish recommended for nickel is rough on the hands of the person using it. So that all in all the committee, it seems to me, has an opportunity of showing us much of value, possibly, after laboratory experiments. Much economy can be brought about, in large hospitals particularly, by the manufacture of soft soap, and I hope the committee will give it a proper place in their final report.

MR. JAMES U. NORRIS: We have only to consider the amount of time and money expended by our hospitals on cleaning in all its branches to realize that this committee has undertaken a most important and necessary piece of work. I agree with the statement of the committee that there is probably no phase of hospital administration which is at present so unstandardized, we might say, as cleaning, but I believe that there is none more possible of standardization.

Regardless of the type of hospital, its size, organization or location, there must be a best method of cleaning each of its various types of floor and wall surfaces, its utensils, instruments, furniture, fabrics and fixtures as well as a best method and best material to do the cleaning with, and if this committee can ultimately tell us authoritatively what the best method and material is in each instance, it will be the means of greatly increasing the efficiency of our institutions as well as saving them a considerable amount of money each year. This is a subject of such great practical interest to all of us that I am sure we will all be glad to co-operate with this committee in every way possible even to the extent of answering a questionnaire. I do not know of course just what method the committee proposes to follow. I suppose they will endeavor to tell us the best method

to use and the best material. I think if we could learn the time it should take to clean certain floor areas of various types, per square foot, that it might help us, because many of us do not know how much surface a cleaner should cover in a specified time. If we could get an indication of how many square feet of concrete or terrazzo floor a person should cover by a certain method in a certain time, it would be most helpful.

DR. C. W. MUNGER: The committee not having made a report, it is quite natural that there should be very little in the way of discussion. I was glad to hear Mr. Norris' statement that questionnaires might be acceptable. We certainly will not attempt to send any questionnaire broadcast to the members of the American Hospital Association, but we will appreciate it if individual members who may be called upon by the committee will co-operate with us in providing information that we may need. We realize that we have a big job. Our committee met this afternoon and we are inclined to wonder whether we will have a report ready a year from now. We are going to get busy on it, however, right away, and we are all agreed that we want it to be an authoritative report and something that will be of real value to the Association.

CHAIRMAN GRUBER: The Chair will entertain a motion to dispose of this report.

DR. BARCOCK: I move that the committee be continued.

The motion was adopted, after which the session adjourned.

THE AMERICAN HOSPITAL ASSOCIATION.

Twenty-fifth Annual Convention, Milwaukee, Wisconsin,
October 31, 1923, 8:00 P. M.

Dr. T. K. Gruber in the Chair.

ADMINISTRATION SECTION.

REPORT OF THE COMMITTEE ON CLINICAL AND SCIENTIFIC EQUIPMENT AND SUPPLIES.

(For the text of the Report see Proceedings of the General Session Tuesday morning, Oct. 30.)

DR. HENRY HEDDEN, Chairman: Yesterday morning in introducing this report, I ran over it briefly and stated that following the wish of the President and trustees, instead of presenting a report of this committee as such, the two members of the committee were asked to prepare monographs on two subjects. So in response, the paper on sterilizing equipment of the hospital was prepared by myself, and the other member of the committee, Mr. Curtis, wrote the paper on the X-ray work of the hospital.

My paper is rather long, and those who are to discuss it formally have probably been over it in manuscript form. It is almost too much to ask anybody else to read it or to hope that anybody else would have read it since yesterday morning. The purpose of this paper as I conceived it, was to try to make the subject presentable in such a way that anyone who wanted to install a complete sterilizing equipment in a moderate sized hospital might find a guide in this paper to the complete installation. Throughout the paper the paragraph heads are shown in capitals, so it is easy to find what you want if it is there, and I do not say much in this paper about methods of sterilizing.

DR. E. R. CREW: As Dr. Hedden has stated, this report deals almost in its entirety with sterilizing equipment. Without reviewing the entire report, which I assume you have read since yesterday, I should like to pick out just two or three points. In discussing the dressing sterilizer Dr. Hedden calls attention to the need of an independent steam generator. I should like to take issue with Dr. Hedden upon this point.

I live in a section where the water is very hard, 24 to 28 grains of hardness per gallon. As a consequence, every few weeks it was necessary to tear down this generator (which was one of the standard type), clean out the lime, put it together again, run it with decreasing efficiency for a few weeks, and then repeat the same process.

During that period I was called many times, with a statement that the sterilizer would not work, to find perhaps that there was no water in it, the nurse had forgotten to turn in the water, or, again, that the dressings were getting wet, to find that the water had been permitted to run in until it had gone above the glass and then on up into the steam chamber and finally into the inner chamber of the sterilizer, saturating the dressings. So after a year or two of this, it occurred to me that we might dispense with the independent generator and admit the steam directly into the sterilizing chamber. So the steam coils were disconnected, or taken out, permitting the steam to go directly into this reservoir and from there into the sterilizer in the usual way, being controlled by the usual valves. This generating chamber still serves as a receptacle for the condensed water and it is drained off occasionally as the water accumulates in it. Since doing this we have had practically no trouble. There has never been a time that our dressings have gotten wet from an overflow of water, and no time that they could not get steam because there was no water in the generator. The reason for having an independent generator, as stated by Dr. Hedden, is that there may be oil fumes or iron rust or fumes from the boiler compound used in your boilers. I think this is theoretical more than it is a fact. There is scarcely any hospital of any size that does not use live steam for the cooking of food. You take the steam from your boiler and let it go directly into contact with food; if it is fit for that, I do not believe it will contaminate dressings or things that are wrapped or that are in drums; in fact, we have never had any trouble from this source.

Attention is called to the need of automatic regulating valves. With the arrangement I have described, it is very much easier to put on one regulating valve on your steam supply line in the basement, employing the type of valve used in steam heating engineering, a comparatively inexpensive valve and requiring only one, which will take care of all the fixtures in your sterilizing room, instead of having the rather expensive nickel plated ones on every fixture. With this valve set at say 22 pounds and the safety valve on your sterilizer set at 25 pounds, you practically never have a blowing off of steam, which is annoying and which increases the humidity in the operating room. Several years ago we installed this regulating valve in the basement on a steam supply line, and we have had less trouble with our sterilizers in these several years than we had in one month before.

In this report attention is also called to the various bed pan sterilizers. Some four or five years ago we bought three of the type that seems to be the best on the market, but our experience with these has been very unhappy. The manufacturer has overlooked the principle that it is volume of water that is needed to cleanse the trap, rather than pressure. These early sterilizers were built with a very

small supply line, $\frac{3}{8}$ or $\frac{1}{2}$ inch line, and a half inch line of water can flow through the trap of one of these sterilizers all day and will not cleanse it. That you know from your experience with toilet fixtures; if the rubber float becomes stuck, that fixture will flow all day and there is not volume enough of water to cleanse the fixture. It requires enough water to fill the trap and to fill the soil line from it, so that there is sufficient suction to draw out all the water and contents of this trap. To overcome this defect we established flush tanks similar to those used on toilet fixtures, so that the nurse could pull a chain and get a sufficient volume of water to flush properly these utensils; but in spite of that, because of their construction, being put together with pipe with threaded joint, there were places that would not cleanse themselves nor could they be cleansed, so that these fixtures became odorous and offensive, until, after a time, we have abandoned them for the purpose of emptying and cleaning pans. We are using them only as sterilizers, turning live steam in them and using them as sterilizers. Looking over the exhibition on the floor, I find there have been some improvements since our appliances were purchased. I find one sterilizer which has a $\frac{3}{4}$ inch supply line to it. I rather doubt if that is large enough; I think it should be rather a one inch supply line.

MR. W. W. RAWSON: Dr. Hedden and Dr. Crew have covered this subject fairly well. While they have disagreed in some things, yet I think they are both right in the circumstances that prevail under different conditions. This report as I have gone over it is very extensive and I think very complete and I believe we can get more good from it by taking it home and making a thorough study of it. There are some things that it may be of benefit to emphasize, and I believe the one above all others is that a thorough investigation should be made before we purchase equipment. Salesmen come along sometimes and talk us into buying things and we buy upon their word before a thorough investigation is made as to just the kind that would be suitable for us, and the result is that many hundreds of dollars are wasted in buying equipment that is not suitable. After the equipment has been installed, then comes the important thing, which is to see to it that it is properly kept up. The average girl who runs our sterilizers knows very little about the mechanical part of them and does not give it the attention that she should. Sometimes we change too often, and I think that the best mechanic we have around our institutions should inspect the sterilizers, in fact all steam equipment, every day. Recently one of the hospitals in Utah had an explosion and burned one of their employees very badly. It was necessary for the insurance company to settle with that employee by paying him \$2,500 for an accident due to carelessness in not having the mechanic keep same up.

The sterilization of our supplies is another thing that should be watched very carefully. Recently at our State Hospital Association convention an attorney spoke to us upon the liability of the hospital. He said that if a patient got an infection through carelessness in sterilizing dressings that the hospital would be liable. It is very hard sometimes to make our employees see the importance of this and that is one thing I think we should keep after our employees constantly about.

Cheap plumbing is another very dangerous thing. Recently one of the nicest buildings that I know of in Utah—they thought they had the very best of plumbing put in, but they found that the plumber failed to ream out the pipe and the result was that it filled up and caused a great deal of trouble, and that was the trouble with this sterilizer exploding because one of the valves had filled up and it was also defective and had not had the proper attention. So this is another thing that should be watched very carefully.

Changing from the sterilizers—I think that we have some other equipment in the hospitals that should be checked up, such as clinical thermometers. I do not know how it is here, but out in Utah the hospitals complain that they get a number of thermometers that are worthless. I believe that in purchasing supplies and equipment of different kinds, when we find that they are not good, we should notify our great organization, the American Hospital Association, and have them warn other hospitals as they did last year on some of the surgical supplies that were purchased by some of our supply houses from the Government and which were defective. I believe we should use our organization more than we do, and when we get anything that is not good, if we would notify our organization and they in turn notify all members, everyone would profit. This would prevent others from getting poor equipment in their institutions. We should use our organization more than we do. We have some of the most capable men and women in it that there are in the United States, and they could give us much information if we would ask for it.

CHAIRMAN GRUBER: I noticed one of my fellow townsmen in the audience who is interested in the sterilization of hospital gauze and hospital supplies, and who is, I believe, putting out one of the best propositions to test your sterilization that can possibly be. I see Mr. Diack in the back of the room; I wonder if he could not say something on sterilization, because I believe he has investigated the proposition to the extent that he tried to put on the market something that would help in sterilization.

MR. A. W. DIACK: I hardly expected one of the exhibitors or pedlers, as we call ourselves, to say anything at all before the meet-

ing, but as Dr. Gruber has said, twelve years ago I became interested in the question of the sterilization of dressings, because a friend of mine, a surgeon, had lost a clean case from infection. My daily work is not connected with the hospital at all—I am doing a modest little chemical engineering business—but this surgeon asked me to go up and see if I could find the cause of the infection, as the hospital authorities had gone thoroughly through the routine in searching for the cause and this young man was so discouraged that he wanted really to satisfy himself that he was not at fault, and I accepted it as a chemical engineering problem. I went up and made my investigation in the sterilizing apparatus.

In my work I have had a whole lot to do with gauges; a difference of one or two pounds in pressure will sometimes make a difference of 1 to 5% in the production of a certain chemical reaction, and believe me, dollars count, so I have to watch gauges very carefully, and in some processes I checked them night and morning. Some hospitals I found during my investigation had not checked them for 16 years; and this gauge that I am speaking of particularly was registering beautifully 18 pounds pressure. When I calibrated the gauge with an exact measure, I found it was a little bit less than 2 pounds. The temperature corresponded to 130 degrees, the real temperature according to a recording thermometer on the inside was less than 70.

That struck me as being a very incongruous thing for a scientific institution to have, and I made up my mind that I would put more study on the problem, after answering my friend the surgeon's question as to where the infection came from, and in making it a study I realized that the whole thing was simply in having a very definite and exact knowledge as to the penetration of heat into packages of different densities. There is the whole question of getting sterilization, and this question must be answered in every sterilizing plant—does the heat penetrate to the center of the big packages? When you have answered that, then you can take your dressings to an operating room and say "Here are clean dressings." Unless you do answer that and have a definite check on it, you cannot say that you are taking clean dressings into an operating room.

The whole question was getting something which would indicate the sterilization points. It is a simple problem—you need time, temperature and moisture, and the problem that was faced was to get something which would register time, which would register temperature and take advantage of the moisture that was in the steam chamber, not only because it was saturated steam, but also because the moisture, the heat, is produced from the condensation of steam on the goods in the material, so that you have a line of condensation or a line of temperature proceeding with the condensation as it goes

into the material. Well, it was those three factors that had to be obtained.

I finally worked out this funny little stunt I have been bringing before you for ten years, which is as simple as the mother's old habit of using a straw that she used to stick into the middle of a cake to see if there was any dough in the center. In order to do that I had to make some bacteriological researches as to the death point of all bacteriological life. The sterilizer control is a definite check which does mark those two factors in sterilizing. I ought not to talk this way before a professional audience when I am talking about my own stuff, but many of you have used this queer little tube and had success with it. I have had many letters saying, "Dear Sir: I don't think your sterilizer control is any good because it won't melt," etc.

MR. ROBERT E. NEFF: The question of mattress sterilizers comes into my mind. I would like to know whether that has been investigated thoroughly and whether Dr. Hedden can tell us anything about that?

DR. HENRY HEDDEN: In reply to Mr. Neff, I might say that the committee was not prepared to discuss mattress sterilizers. I mentioned in introducing my paper that that was one of the three or four things I could think of that I had omitted. One was a disinfectant; another was that I omitted the mention of a pressure sterilizer washer such as used in some cases in the reclamation of gauze, and I also did not make any mention of a sterilizer door which is held in position by steam pressure.

I appreciate very much Dr. Crew's discussion, particularly centering around the use of an independent steam generator, and I might say in writing this paper I did not put all my own ideas forward, because some of them are open to considerably more discussion than I care to face. I could say a whole lot about a pressure dressing sterilizer that probably would be unwise as coming from a committee report. The doctor's point about the scheme of independent steam generators was very well taken and I should judge, unless the doctor uses in his steam plant a water softening system, that he would have the same trouble in a magnified degree in his boilers.

My own practice is not to use the bed pan sterilizer at all, but to use a flushing washer in the form of hot water, quite hot, and then sterilize the utensils in a utensil sterilizer.

Dr. Rawson's point was very well taken. I have had a woeful amount of experience in the last year. I had an installation where we had to use gas; I have camped on the trail of the operating nurses and done everything in the world to help them and help the work of the operating room to try to prevent breakdowns, and it has nearly broken my heart to see some of the results. A gas sterilizer is a heart breaker and I do not know any way that the gas can be con-

trolled; when the sub-generator runs dry, it means a new generator at the very least, and a tieup and very few hospitals that have to use gas keep a reserve generator on hand to replace the one that burns out.

I think it was a very good idea that the doctor advanced that the American Hospital Association might be used a great deal more than it is, as a clearing house of information particularly; he mentioned clinical thermometers that are way off; there are a great many supply houses that unwittingly buy a great many things that are unfit to use, and one person might warn all the members of some questionable practices that arise. I have made it a point when I run across anything of that kind, to tell my professional brethren in the city where I come from, and they do the same thing in return.

SPECIAL REPORT BY SUB-COMMITTEE ON X-RAY DEPARTMENT WORK
By MR. LOUIS R. CURTIS, of Chicago, Vice President of St. Luke's Hospital.

(For the text of the Report see General Session Tuesday Morning, Oct. 30th.)

MR. JAMES R. MAYS: I am going to ask the indulgence of the audience while I read one paragraph, which is next to the last, in the report and upon which I expect to center my discussion, and that reads, "In conclusion, administrators of hospitals are urged to place the X-ray laboratory on a higher plane than has been accorded it in most institutions." I believe it is a recognized fact by 95% of what I might term, the semi-private, semi-charitable institutions, that the X-ray department has not been given its due consideration. Our pathological departments have been developed along very high scientific lines, while the X-ray departments have been allowed to lag, for various reasons better known to the individual who is directly responsible for his or her particular institution.

If you will pardon me, I will center my discussion around the development at the particular hospital and the only hospital I have ever been interested in in the capacity of superintendent. I know more about that than I do about the other fellow's hospital, and if I say "I" and "we" and "us" too many times, I hope you will pardon me.

About five years ago, when I assumed charge of the Garfield Memorial Hospital, I found the X-ray department off in a corner in charge of a gentleman who was one of the pioneers in the X-ray game, a man who had lost several of his fingers, but he had got to a stage where he was afraid to go any further, particularly with the fleuroscopic work, and absolutely refused to do it. His reports of the

radiographic work were sometimes three or four days late and after trying to get that particular individual to realize the importance of his department and failing, I reported to the board and they made a change. In our city we were fortunate in having a group of men who were specialists in X-ray work. I think in justice to them I may say they were without a peer elsewhere in the country. We made a contract with those gentlemen to install a complete equipment, we furnishing the space. That resulted in a complete new installation of equipment, modern, and today branching out into all branches of the work, particularly that of the treatment of cancer, otherwise known as X-ray therapy, keeping up the radiographic work as well as the fluoroscopic, getting the reports out promptly and on time.

We had a very satisfactory financial arrangement with them whereby we paid for the plates in the free wards and received a commission on the private patient work that more than offset the cost of the charity and fully repaid the rental or sufficient rental for the particular space devoted to their laboratory. They put no limit, nor did we, upon the work done in the charity wards, which is also very important.

In the early part of the year 1922, one of the most important advances, since the beginning of X-ray therapy, was announced, and, as is well known, consists of the ability to increase the voltage in X-ray tubes to two hundred thousand or more. After a careful and thorough investigation the authorities at the Garfield Memorial Hospital deemed it advisable to completely reorganize their X-ray department, the result being the installation of complete new equipment, in a new location in the building, at least three times the size of the former X-ray department. This change was made, and actual operation of the equipment began in November 1922.

The capacity of the old equipment consisted of a 9-in. Gap machine, with self-rectifying units for radiographic work. This represented the only available apparatus for therapeutic purposes, until the development of the machine as hereinbefore mentioned, capable of delivering a voltage of two hundred thousand or more. When this new installation was made in November 1922, the authorities in charge of this department believed that this increase in facilities would be adequate for a number of years. However, due to the increased demand for such services, backed up by the satisfactory results obtained, it was found after less than two months' operation that our facilities were totally inadequate. After several experiments we found that it was possible to operate at least two high voltage tubes from the transformer designed originally to operate only one, and after several months' actual operation we have arrived at the definite conclusion that it is easier to operate two than one. In the therapy department the old tube stands as well as lead screens have

been discarded due to the fact that we have the "Coolidge" tubes, in metal cylinders. This method, we believe, not only affords more adequate protection to patient and operator, but in all probability is an important factor in increasing the life of the tube, and unquestionably represents a saving over the old practice of having walls lined with lead, lead partitions, etc.

Since the installation of the new equipment, we have punctured only one tube in the deep therapy department, and this tube punctured at 755 hours and 30 minutes. Two other tubes have operated to date 210 and 95½ hours. In view of the fact that the best information we can receive is that the average life of a tube is approximately 75 hours, it would appear that the item of expense in this connection is much below the average.

We have treated in the deep therapy department since installing the new apparatus, 200 patients to date, representing total hours treatment of 1,061.

While it is too early to make a final statement of results, we find much encouragement in the favorable behavior of hopelessly inoperable cases of malignancy which have heretofore failed to respond to any method of treatment, and the results from a therapeutic standpoint have been far better than we hoped for in the beginning.

I do not think in any department in any hospital the question of cost should stop one minute's treatment or service rendered to a patient who applies. I believe that the public duty to any institution that is doing all it can, is so great that any governing body of any particular class hospital will take upon itself the responsibility of providing proper facilities and will later on present the question and the facts to the public. I do not think there is the shadow of a doubt as to whether they will come to the relief of that particular institution and pay for the cost of properly presenting—in other words, advertising—the matter. I believe that all hospitals should advertise what they are doing. I do not mean by paid advertisements, but I think they should take advantage of every opportunity to state to the public what they are doing. As a result, when we opened in our new department, I called in the International News Service. They took photographs and wrote a considerable number of articles that ran over the entire world. As a result we have patients from England and France and from all over the United States. Those patients did not come to the Garfield Memorial Hospital because it was the Garfield Memorial. They came there because the news went out that their suffering could be relieved in that particular place. It has been a financial success, but that was the last consideration. When the question of remodelling the part of the building necessary for this new laboratory came up, or approximately \$4,000, my board said, "Where do you get the \$4,000?" "In return for the satisfaction of

knowing that we are taking the lead and doing the best that we can for suffering humanity."

MR. HANSON: Did you make the same arrangement with the radiologist as to the installation of the machine when he put in this new equipment?

MR. MAYS: Practically the same. They furnished the equipment, which cost approximately \$10,000; we furnished the space, remodelled the building, and we pay the actual cost of the number of plates (which is \$1.00 or \$1.25) for charity work done (there is no limit put on the number of plates that may be ordered for any patient in the open ward); and we get 20% of the private patients' fee income, and we furnish one technician and one orderly, and, of course, the necessary heat, light and power down to service other than that of orderly, and the current bill. But the 20% pays that and in turn leaves the hospital a sufficient amount to cover the cost termed rental for that particular space.

MR. H. M. VERMILLION: I would like to ask if the records of this department, including the plates or films, become the property of the hospital, or do they remain the property of the gentlemen who operate the department?

MR. MAYS: We have an understanding that a complete record of each case must be kept in the hospital. If the firm doing the work desires a copy of the same work, they must make the copies and leave one plate and card record of each patient with the hospital proper.

MR. SIDNEY G. DAVIDSON: The report of the committee evidently indicates that they favor the employment of a full time radiologist and the securing of the greater use of the X-ray.

I think this is a very important matter and should be fully considered. The X-ray department of the hospital is a diagnostic aid both for the patient and the physician.

I think we are pretty thoroughly convinced that the charges for X-ray work have been beyond the means of the ordinary hospital patient; this is due to the fact that so many hospitals have employed the services of a part time Roentgenologist who also maintains his private laboratory in the city, and is permitted to indicate the charges made to the patients in the hospital, which of course must be kept as high as his private charges, at least from his point of view. It has resulted in the hospital having little or no control over this department, and in too few patients getting the service of this diagnostic aid.

I feel that in the department of Roentgenology as in every other department, the board of trustees of the hospital must assume all the responsibility for giving to their patients every service that the hospital can offer and at a cost they can afford to pay, and they have no

right to leave it to the discretion of a private individual to make such charges as he may desire.

By the employment of a full time X-ray man charges can be made so low that not a patient need come into the hospital and not have the use of this service when needed, and the receipts from the department will be sufficient not only to pay the salary of a radiologist and a technician, but to develop the department as the needs arise. It is a service also that should be rendered to the staff who need the advice of a competent man in the interpretation of the work, and need him as a consultant in determining what shall be done after the plates have been interpreted. This service cannot be secured from a technician nor from a man who comes into the hospital and spends an hour or an hour and a half a day in the X-ray department. He must be there on full time to give adequate service to the patients and to the staff.

At our hospital this year we have employed a full time man and were fortunate in securing the services of a very competent young man who had had good training and desired to build up a department with the hospital; compensation was arranged on a flat salary basis, and we make charges at least 50% lower than the average charges throughout the country and as a consequence are building up a very large amount of work; are employing a technician and in addition are giving the members of our staff the benefit of consultation at any time of day or night with a specialist in a specialized department.

MR. MAYS: I would like to say that if we had to take the type of man that we have doing our work now and put him on a salary basis, in the first place, I do not think we could employ him, and in the second place, under no circumstances for less than twelve or fifteen thousand dollars a year, which would cause us to increase, by necessity, our price on the plates or the amount of work in that department. The question of the amount of charity work done either by a member of the staff proper or by the Roentgenologist (who should by all means be a member of the active staff) depends upon the type of man you are doing business with. If an appeal comes to me that a bill is too high, higher than the patient can afford to pay, I am very glad to say that our Roentgenologist says, "I will leave that to you." There has never been a question in four years and a half that has ever come up between those gentlemen, either particular gentleman of the group of three, that has not immediately been settled, satisfactorily both to them and to ourselves. I am absolutely positive that had we a full time Roentgenologist, the type of man that we have now, our patients would have paid, in the course of four years, at least \$20,000 more for the service they have received.

DR. M. T. MACEachern: I want to congratulate the writer on this report we have just heard. There is one point he made which may have been passed over lightly tonight. Page 59 of the report, last sentence in the middle of the paragraph, emphasizes the importance of fireproof storage place for films. I have been told that films used nowadays for X-ray work are very dangerous from the standpoint of fire risk. I am told, too, though I do not know how true it is, that they are as explosive as the films used in moving picture theaters, which are carried in metal cases. I know a number of hospitals today are not protecting themselves against this risk. Should not all X-ray films be kept in fireproof vaults of some kind?

Another point which I want to raise, although it is of very little importance—I would like to ask the speaker: Should we call the X-ray a laboratory or a department, when speaking of it? A laboratory, as I understand it, is a place to make tests; an X-ray department makes examinations of the person. It has been called both in the report submitted. What, therefore, should we call the X-ray, a laboratory or a department?

MR. CURTIS: As a matter of hospital routine, we call it a department.

CHAIRMAN GRUBER: The fire department has served notice on the department I am connected with, and I believe all others in Detroit, that by the first of January we must have proper vaults built to house our X-ray films. There is, I believe, a state regulation on the storing of films, providing that no film shall be stored in the basement, and when they came to investigate the Receiving Hospital the most glaring fault that stood out was that we had about 250 pounds of film stored right in the basement under the front door and if it should go up, there would not be much chance of getting anyone out of the place at all; and on the second floor, in almost the heart of the building, was our X-ray department and we had several pounds of film stored there—of course our current film. I suggested the proposition of duplitzed film and was told that it did not make a particle of difference, that it was just as inflammable and dangerous as any other film and regardless of any ifs and ands about it, by the first of January it had to be properly stored or they would come and haul it out and take it outside and store it for us. Our hospital is no different from any other in Detroit. The fire department just discovered this in the last month and I had never thought of it and I daresay most of the hospitals had not, but I know we have enough films stored there to ruin the institution if a fire ever gets started.

DR. WALTER H. CONLEY: I would like to state that the Fire Prevention Bureau of the City of New York has issued an order to all the hospitals of the city that they must keep their films in fireproof containers.

CHAIRMAN GRUBER: In order to get good X-ray work we seem to feel that we have to have a different sort of laboratory technician than for other work. I know of institutions in this country that are doing most admirable work. I believe the institution at Sayre, Pa., the Parker Hospital (in which Dr. Guthrie, one of the foremost surgeons in the country, is working) have a technician who is doing their X-ray work and I believe they are admirably satisfied. I have an idea back in my own head that we are going to get an idea later on, that we can get technicians who can do an awful lot towards helping us out on the X-ray problem; at least we are going to get better work than a great many institutions are getting at the present time. I know of an institution that had an arrangement with a Roentgenologist who got quite a good deal of money out of that institution and from what I know of the whole arrangement I felt the institution did not get more than about a nickel's worth of his time. My prediction is that the smaller hospitals, especially, and the larger ones, too, are going to undergo a great change in their attitude toward the technician and the Roentgenologist in their X-ray departments, and I shall probably be branded as a heretic when I say that we can X-ray interpretations by other than a medical man, but I am coming to believe that it is perfectly possible. Is there any further discussion?

MR. MAYS: Your reference to a surgeon is interesting to me. Two weeks ago I visited a new hospital in Baltimore that cost a million dollars. I was very much interested in their X-ray department. I knew they had at least as much space as we had devoted to the X-ray department. There was absolutely no provision for deep therapy work in that hospital, no equipment, and yet they said their X-ray department was complete! I believe today that the X-ray treatment of cancer would be ten years ahead of what it is if it had not been for the jealousy on the part of the surgeon.

MR. C. J. DECKER: There seems to be considerable difference of opinion as to whether an X-ray service should be under institutional administration.

Since the Toronto General Hospital is one institution which operates its own X-ray department I think I should give you some idea of how it has worked out with us.

Last year we received in that department, and cared for, approximately 20,000 individual cases. We employ there four doctors, two of whom receive a salary considerably higher than the top figure suggested here tonight as necessary to pay an efficient radiologist. Under the direction of the professional staff, we have some 15 or 16 technicians. We are a teaching hospital, having set aside 570 beds out of a total of 760 beds, for teaching purposes. I mention this because everyone knows that a clinician interested in the clinical

value of the case will take advantage of X-ray reports wherever there is any occasion to use them. This is borne out by the fact that our free work last year cost us \$43,500. In spite of this large contribution to our public service, and notwithstanding the fact that we pay high salaries in order to get the very best men available, the department is entirely self-sustaining. You may ask whether our charges to private cases are not exorbitant; I assure you they are not. They are lower than the rates charged by those conducting a private business in radiology. This fact has brought several deputations to my office complaining that our rates are so low that the outside man cannot make ends meet in this business.

Based on our experience, I am trying to answer the question of whether or not a hospital can or should operate its own X-ray service and whether it can operate an efficient service without a heavy drain on the finances of the hospital. Our experience would rather indicate that it can be done. We call the X-ray service a department of the hospital rather than a laboratory, for the reason that it does more than diagnostic and research work, a very large percentage of its volume being treatment work.

MRS. HANNER: Is it not one of the requirements of the American College of Surgeons that an X-ray department shall be under the supervision of a Roentgenologist, and not a technician?

DR. M. T. MACEachern: Yes, we require that the X-ray department be under the direction of a Roentgenologist. Technicians give excellent technical service but cannot do interpretation. Interpretation can only be properly done by a trained medical Roentgenologist. Sometimes the technician is also at a disadvantage to know what possibly might be the best position for the patient to reveal the findings. In the opinion of Dr. Case of Battle Creek, one of our greatest authorities, and others, it is absolutely necessary to have this department under the direction of a competent medical radiologist. In some small hospitals they cannot secure the service of a highly paid radiologist, and in such institutions as, for instance, forty or fifty miles from Mr. Decker's hospital that you have just heard about, they might take the film and send it there for interpretation. There are a number of pictures, of course, that the surgeon could possibly interpret correctly, but there are others that must be sent to the nearest highly developed efficient department. In this diagnostic department, as well as many others, we must have teamwork between the large and the small hospital.

MR. L. R. CURTIS: I have just one suggestion; it is this—that anybody using the high tension current with the Barrow protector, make a pretty thorough investigation before the takedown is laid on the floors. We went into that at some length a couple of years ago.

CHAIRMAN GRUBER: The Chair will entertain a motion for the disposition of these two reports, which are really parts of the same report—the Report of the Committee on Clinical and Scientific Equipment and the Report of the Sub-Committee on X-ray Department Work. It will be necessary to make a motion to dispose of these by suggesting to the Board of Trustees that they continue the committee for further investigation, or that the report be accepted as final and considered as such, or that the report be rejected.

A MEMBER: I move they be accepted and referred to the Trustees.

The motion was adopted.

REPORT OF THE COMMITTEE ON GENERAL FURNISHINGS AND SUPPLIES

(For the text of the report see the General Session, Tuesday, October 30th.)

MISS MARGARET ROGERS: We hope that the discussion will bring out suggestions and criticisms that will be helpful in completing the final report.

After the discussion we heard yesterday regarding questionnaires I felt somewhat skeptical about the outcome of our work. Perhaps some of the members of the Association can tell the committee how to get the information necessary without questionnaires. We shall be very grateful for any information along that line.

As stated in the report, only 365 replies were received from 1,100 questionnaires sent out. This is a small percentage.

The Catholic hospitals, which contain over 60% of all the hospital beds in the United States and Canada, have not been included. These hospitals should be included before the survey is completed.

I have been very much encouraged since I came to the conference because of the interest shown by a number of our leading executives in the work that our committee has taken up, also because of the interest shown in the charts and literature in Booth No. 216.

Personally I have become somewhat of a Simplified Practice enthusiast quite naturally, as no one could possibly give much thought to what has already been accomplished without becoming impressed with the great possibilities of enormous saving of money in our institutions where Simplified Practice can be applied.

DR. WALTER H. CONLEY: This subject is of vital interest to all hospitals, particularly what Miss Rogers, as chairman of this committee, has reported on the bed question. She has shown the great variety in sizes of beds both as to width and length. I have

been informed by one of the largest manufacturers of beds in this country that beds could be reduced in cost from 25 to 30% if they were standardized. At the present time 50% of all the beds that are sold to hospitals and hotels are of four different varieties; 90% of all the beds that are sold to hospitals and hotels (including the 50% mentioned above) are of twelve different designs and sizes and the remaining 10% consist of 350 designs, and these 350 designs are used mostly by hospitals, not hotels. If beds were standardized in four or twelve designs and the manufacturers did not have to make the dies and forms to build the other 350 models, they could reduce the cost of production 25 to 30%. There are over 300,000 hospital beds in the United States and probably 10%, or 30,000, of them are replaced each year, the average cost being \$30 apiece. Now, if we could save \$10 on each bed, that would be a saving of \$300,000 a year alone. Then, if we consider that there are 4,000 to 8,000 new hospital beds added each year and figure \$10 on each of these, we are almost up to half a million dollars a year that could be saved to the hospitals if we would ourselves help to standardize the beds. Our Government has started the work. Their reason for starting it was that during the war they needed beds and needed them quickly. There were so many different models and each manufacturer had a different model and they would not standardize them. In the case of another emergency, they intend to have the beds all of one model so that any manufacturer can produce them in a short time. In the city of New York we have attempted to standardize the size of the beds and we are following the Government specification to a certain extent. I believe when Mr. Hoover gets through, that his specification and our specification will be the same.

I think that it behooves the American Hospital Association to continue this committee until we standardize beds first, and then standardize mattresses and bedding of all kinds. It will be a great saving of money to the hospital—and Heaven knows we need it.

CHAIRMAN GRUBER: On the matter of the questionnaire: We want to find out a lot of things on the matter of beds, linen, mattresses, and other things. If Miss Rogers and her committee are going to find these out, they will have to find out from the individual hospital what they are doing; there is no other way to find out. I have heard this matter of the questionnaire sneered at a good many times, but you will never get hanged for asking questions, and so I want to encourage Miss Rogers in sending out this questionnaire to get this information.

DR. HENRY HEDDEN: I want to assure Miss Rogers, and I think I can speak for a great many hospitals, that she will have our cooperation. I do not believe there is any other way the information can be obtained except by direct appeal. I want to say, too,

that I think she prosecuted her campaign with a great deal of vigor. The first thing we knew, along the middle of summer, we received a questionnaire. Mine was not answered very promptly and I received another, and then I sat up and took notice, and I want to assure her that I think we are all back of this; I think it is one of the most important investigations being carried out by any committee under the American Hospital Association.

CHAIRMAN GRUBER: I want to say further on the matter of investigation, as I have heard each of the reports this afternoon, the manufacturers come up here and say, "If you will tell us what you want we will be glad to make it." How are we going to get the information to tell them what we want? We have got to have people who will get busy and get the information.

MISS MARGARET ROGERS: In regard to what Dr. Hedden has just said—it was absolutely necessary to send the second questionnaire in order to get enough replies to be able to present a report at this conference.

I might also state here that if it had not been for the cooperation of the Division of Simplified Practice, I doubt if the survey would have made as much progress as it has.

Letters have been sent out by the Division of Simplified Practice to all superintendents who did not reply to the first and second questionnaire, also to the manufacturers. I hope that the letters will be received in the spirit in which they have been sent and that the superintendents will indicate their cooperation by returning the questionnaires to me at an early date.

I wish to thank Dr. Hedden for his offer of cooperation, also Dr. Conley, who has furnished the committee with specifications for hospital beds for the city institutions in New York City which will be valuable in completing the final report.

CHAIRMAN GRUBER: I will entertain a motion for the disposition of the report, with the suggestion that someone make a motion that the report be referred to the Trustees with the request that the committee be continued for further report.

It was so moved and carried.

REPORT OF THE COMMITTEE ON TRAINING SCHOOL BUDGETS

DR. GEORGE O'HANLON, Chairman: The committee was appointed quite recently and did not have any opportunity to make a survey, as I stated, of what is now being done. Training schools, in the East particularly, seem to be taking quite an interest in the budgetary system for their schools. As I said yesterday, the schools and the hospital are so closely connected up that it is going to be very difficult for many of the schools to arrive at a definite expense

accounting or control for their training schools. For the information of the superintendent or the governing board, as well as for the administration of the training school, I think it is very desirable, in fact I think it is inevitable, that you have a budgetary system, because it means control. But again, it is necessary for you to have the cooperation of everybody who has to do with the expenditure of money in your institution, if that budgetary system is to operate at all.

I am afraid when we do have a general budgetary system, that the same use will be made of it as is now made of per capita cost and death rate in hospitals. It is not fair for any hospital, to my way of thinking, to compare either per capita cost or its death rate; one means just about as much as the other. At luncheon today a hospital superintendent said that 60 or 75 hospitals in his State receiving State care had a definite per capita, and each hospital superintendent went around with that per capita list in his pocket, and whenever he heard the name of a hospital mentioned in that particular State he pulled out the card to see whether the per capita was high or low, and apparently judged the administration of the hospital by the per capita cost. There aren't any two hospitals doing exactly the same kind of work, no matter from what source their aid comes, and there are no two hospitals under the same administration doing exactly the same thing. I have five hospitals under my control, central administration, central purchasing department, same training school supervision, theoretically taking care of the same type of cases, acute general hospitals, the same services, and yet no two of them alike; the same dietitian; so in theory they have the same menus, the same kitchen supervision and everything, yet there aren't any two of those hospitals that have anywhere near the same per capita cost; so, I say, when we do get this budgetary system established, before we know it the training school superintendents at their gatherings will get up and tell what it costs to conduct a training school, and they are not conducting the same kind of a training school at all.

The committee, if we are continued in office, I hope will have something to present to you next year in the way of suggestions, but I am not at all optimistic on being able to present anything to you that will be either acceptable or satisfactory. We would like some suggestions however as to what you would like, and it would be very helpful to us if you will tell us how to differentiate the cost as between the training school and the hospital proper, and just exactly how you are going to arrive at the actual food cost, for instance, for maintaining nurses when the food is cooked in the same kettle and distributed from the same kitchen, not in the same dining room but through the same pantry. There are a few practical problems that we will have to ask you to help us out on.

CHAIRMAN GRUBER: I will entertain a motion for the disposition of this report, with the suggestion that someone move that the report be referred to the Trustees with the request that the committee be continued for further report.

It was so moved and carried, after which the session adjourned.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, October 31, 1923, 8:00 P. M. Mr. Alfred C. Meyer in the Chair.

TRUSTEE SECTION.

CHAIRMAN MEYER: The first part of the program was to have been a report by Dr. Robert J. Wilson, Director of Hospitals, Health Department, New York City, on "Old Age Pensions for Hospital Employees." Dr. Wilson unfortunately has been unable to come, through illness. Mr. Bacon is presenting Dr. Wilson's paper.

PRESIDENT BACON: In order to arouse interest in the matter of old age pensions, it was thought a good plan this year to appoint a committee to investigate the various systems throughout the country to see if we could devise some scheme whereby the superintendents, especially, could be pensioned. We have had instances where our superintendents have really died in the harness, one this year, whom I know had not laid aside money enough to enable him to retire at 65 or even at 70. And with the superintendents especially in view, I thought it wise to appoint this committee, and Dr. Robert J. Wilson of the Bureau of Hospitals of the Department of Health of New York was appointed as Chairman. Although Dr. Wilson's health failed him, he tried to gather some material; in fact, had taken the subject up with one of the experts from a life insurance company in New York, which has been giving this matter quite an extensive study as to the insuring of employees, and they thought it might be that some scheme could be worked out in connection with the American Hospital Association whereby the superintendents might be protected in their old age. Dr. Wilson writes as follows:

Mr. Asa S. Bacon,

President, American Hospital Association,

Chicago, Illinois.

My dear Mr. Bacon:

Feeling that possibly you might wish to present some statement to the Trustees about the proposed pension plan, I called Dr. O'Hanlon and Dr. Howell to confer with me, yesterday, on this subject.

In going over the correspondence which I have had with you, Dr. Warner and Mr. Kimball on this subject, we are agreed that while approving the principles, it is too large a subject for the American Hospital Association to deal with beyond the adoption of a plan for giving the membership general information on the question of pensions through bulletins issued by the Association from its head-

quarters, and urging the managers and trustees of hospitals to establish pensions or retiring systems for their employees. The only hospital that I know of at the present time which has a pension system for all employees is the New York Hospital of this city. I am enclosing, herewith, a description of this system as adopted by the Board of Governors on May 5th, 1914, just previous to Dr. Howell's mention of it in his Presidential address in St. Paul in 1914.

I have a letter from Mr. Kimball in which he states he will have another conference with me in the near future; this always if the condition of my health permits.

If this letter, notifying you of the conference held by Drs. O'Hanlon and Howell and myself, will be of any value to you, I shall be pleased.

With kind regards and the very best wishes for a successful meeting, which Dr. Warner assures me there is every reason to believe it is going to be, I am,

Yours very truly,

ROBERT J. WILSON, Director.

P. S. I am extremely sorry that I cannot be with you to help uphold your efforts for the betterment of hospital administration, but you have my very best wishes.

CHAIRMAN MEYER: We are very fortunate in having with us this evening Mr. Edwin R. Embree, the Secretary of the Rockefeller Foundation, who will talk to us on the advantages and disadvantages of endowment funds for hospitals. Inasmuch as the report of the Special Committee on Endowments will follow Mr. Embree's address, we thought it advisable to discuss both papers at once.

HOSPITAL ENDOWMENTS

By Edwin R. Embree, Secretary, Rockefeller Foundation.
New York City.

The real endowment of any institution might well be not only money but desire and ability to meet fresh needs as they come, to set new standards in succeeding generations. Coin of that mintage can never be too plentiful among the assets of any hospital. "The man who creates new needs and new desires is the best benefactor," says Bernard Shaw.¹ Trustees and citizens who constantly point out

¹ In Fabian Tract No. 107, under the title "Socialism for Millionaires," Mr. Shaw makes some fresh and stimulating comments on the art of giving.

modern opportunities for advance and insist upon meeting fully developing needs are the real donors to hospitals.

This, however, is not the type of endowment to which institutions generally have been heir. Capital value in buildings, in rented real estate, and in interest bearing stocks and bonds, are the types of things which for a thousand years hospital trustees have been writing into their books as permanent assets. I am by no means disposed to belittle the value of such property to any institution of public service. Such lasting endowments have often made it possible for important hospitals and colleges to continue their good work century after century. The giving of money in order to establish for future generations as well as for the present institutions for the education of the young and for the humane care of the ill and unfortunate has been one of the fine expressions of enlightened altruism throughout modern history.

As a background, it may be well to recall how old is the idea of institutional care for the sick and how thoroughly established in connection with it is the practice of providing lasting endowments.

The germ² of the hospital idea may have been in the ancient Babylonian custom of bringing the sick into the market place for consultation. The Egyptians and Greeks held primitive clinics in the temples and there is reason to believe that housing for the care of the sick was developed in both Egypt and Greece long before the Christian era. In India records indicate that hospitals were numerous 300 years before the birth of Christ. Hospitals founded by the Emperor of Hindustan as early as 260 B. C. contained provisions so extensive as to be quite comparable to modern institutions.

With the advance of the Christian church, hospital building increased so rapidly and has continued so consistently as to lead some to claim organized care of the sick as a special contribution of Christianity. The early Christian infirmaries were founded in direct connection with the church and were supported from its revenue.

A few of the hospital foundations which have persisted from the

² The classic authority on hospital history and administration is H. C. Burdett's "Hospitals and Asylums of the World," published in London in 1893, with periodic supplements. Other standard histories include F. H. Garrison—"An Introduction to the History of Medicine and Medical Chronology" (with bibliographical data), Saunders Co., 1921; A. J. Ochsner—"The Organization, Construction and Management of Hospitals," Cleveland Press, Chicago, 1909; C. Tollet—"Les édifices hospitaliers depuis leur origine jusqu' à nos jours," Paris, 1892; W. G. Wylie—"Hospitals, Their History, Organization and Construction," Appleton, 1877.

middle ages have interesting histories and splendid records of service.

St. Bartholomew's Hospital—"Bart's," as it is known in London—celebrated this spring its 800th anniversary. Rahere, the court jester (so the story goes in the literature of the commemoration ceremony), repenting of his vain and frivolous life, went on a pilgrimage to Rome. On the way he became ill and thereupon vowed that if he recovered he would found a hospital. Later a vision of St. Bartholomew appeared to him in a dream, reminded him of this vow and suggested that he build also a church. With the aid of the Bishop of London, Rahere gained a grant of land from King Henry I—the very tract upon which "Bart's" stands today, and has stood with repeated rebuildings for 800 years.

Harvey, the discoverer of the circulation of the blood, was appointed physician to this hospital in 1609 and held the office for 34 years. Medical education in connection with this foundation, according to the earliest records, began in 1662, when students were reported to be in the habit of attending medical and surgical practice in the wards. This was the beginning of one of the great present hospital medical schools of London.

St. Thomas' Hospital, whose buildings now form the beautiful range on the Albert Embankment just across from Parliament House, goes back in its foundation³ to times probably preceding St. Bartholomew's. Long before the Norman conquest, a pious maiden, Mary, built a small convent on the banks of the Thames from funds acquired from a profitable ferry. This house in 1106 became the Priory of St. Mary Overie and cared for the sick of the city and was later united with the hospital of Bermondsey and named in memory of the martyr, St. Thomas of Canterbury.

A chief modern interest of St. Thomas' is that in this hospital, in 1860, Florence Nightingale founded the first great modern school for nurse training. Records and regulations still in existence reveal the significance of the changes which this school brought about. An

³ Interesting accounts of individual hospital foundations include: "The Hôtel Dieu of Paris," *U. S. Naval Medical Bulletin*, 1918, vol. 12, pp. 653-693; D. L. Mackay—"A Thirteenth Century Hospital," *Modern Hospital*, July, 1921, vol. 17, pp. 10-14; G. Q. Roberts—"A Brief History of St. Thomas' Hospital, London," Photochrom Co., Ltd., 1920; "The Medical College of St. Bartholomew's Hospital in the City of London," *University of London Sessions*, 1922-23. In addition, references in this paper are based upon visits last summer to the archives of St. Thomas' Hospital, London, and La Charité in Lyons.

old poster still preserved in the archives states that "Nurses if found drunk on the wards will be fined two weeks' pay." A passage from the ancient routine of service for the nurse in St. Thomas' throws light upon hospital customs of a hundred years ago. "She must," the rules read, "attend the butler at the ringing of the beer bell and take with her such patients as are able to carry the beer in safety to the ward and not suffer such patients to waste or embezzle it by the way."

The Hôtel Dieu of Paris is believed to be the oldest of the hospitals in Europe with a history of unbroken service, a service which continues at high standard today.

A still earlier French foundation, but one without a record of continuous service, is that of King Childebert in Lyons dating from the sixth century and represented today in the beautiful building by Soufflot, also called Hôtel Dieu. The hospital facilities of Lyons were enlarged by gifts in 1530 from a rich woman as a result of a distressing accident to which she was an all unwilling party. This woman, the story goes, was driving her carriage and four across the narrow bridge of the Rhone in the center of Lyons when she met a group of merry-makers returning from a party. Her horses took fright, the rollickers became panic-stricken and in the *melée* men and women were trampled upon and some rushed over the rail and were borne away by the swift current of the stream. The grande dame was so overcome with grief at this suffering that she gave all her earthly goods to extend those provisions for the care of the sick begun in Lyons a thousand years before. From this gift grew La Charité, the great infirmary which today adjoins the Hôtel Dieu on the banks of the Rhone.

In the beautiful *salle de conférence* of La Charité, surrounded by exquisite 16th century work carvings, I was present last summer at the organization meeting of a notable new school of nursing sponsored by a committee the head of which is the Dean of the Medical Faculty. In this old hospital which has looked on grimly at human suffering for hundreds of years, which with good enough intentions has allowed that suffering to be so much increased because of poor nursing and neglect of even primitive sanitation and care, in this very embodiment of the old conservative attitude toward the sick and toward nursing, was born a school not only for the best modern training for sick care, but a school dedicated to training chiefly for public health, for child welfare, for preventive work in the homes and instruction in the schools.

This significant new institution has grown directly from a union of new ideals with these 1,400-year-old foundations. It represents the determination both of those responsible for the hospitals and of those interested generally in medical care and public health in Lyons

to have these old institutions meet new needs with improved standards and by fresh methods.

These are but examples indicating the early and firmly established place which hospitals have in the life of civilized peoples. They illustrate what endowments, retained and added to from age to age, may do in preserving worthy institutions. They make it clear that foundations, in wise hands guided by intellectual resourcefulness and imagination, may adapt themselves to new needs, may continuously raise their standards and revise their methods in meeting the new demands of succeeding generations. These are elementary and fundamental considerations with respect to hospital establishments. It would be unwise and unfair to underestimate the importance of endowments in the history of hospital service.

May not the danger, however, be in the other direction? Is it not a common tendency to assume that the raising of funds, the accumulation of large endowments, are the all important functions of hospital trustees? Recognizing and giving all due weight to the record of ancient and rich foundations, should not the prime emphasis be given by trustees, not to the amounts of money which they can raise, but to the uses to which these sums are placed?

Unfortunately, for every example of the Hôtel Dieu in Paris that has come down with splendid and ever improving service, there are dozens, if not hundreds of houses, homes, hospitals and charitable foundations that have died of inanition, that have wasted of dry rot. La Charité in Lyons is one of the scores of old hospitals in France, of hundreds of old foundations on the Continent; but in how many others can one find ready adaptation to modern conditions of sick care, to say nothing of interest in medical education or nurse training? The significant thing about St. Thomas' is not its pre-Norman beginning, but its service through Florence Nightingale to a new school of nursing. "Bart's" eight hundred years of history is glorified and made significant for this generation by its present excellent care each year for 9,000 ward patients and for 300,000 dispensary calls and by its present great contribution to medical education.

Neither should we be unduly impressed with the mere continuation of service of a single institution. If St. Thomas' with its thousand years of history had not been at hand, nurse training would not have suffered irreparably by being launched in a hospital but a hundred years old or even two weeks old. Not its antiquity but its willingness and ability to be of service was the distinguishing feature of St. Thomas' in the founding of modern nursing.

Nor should we forget that those institutions which expend themselves in a single great gesture often are more nearly immortal than those which continue a physical existence. It was really in the temporary military barracks of Scutari that Florence Nightingale

began her great work. There modern nurse training really had its birth. The fact that no endowment continues that group of shacks now mouldering on the Asiatic shores of the Bosphorus, in no way dims the brilliance of the contribution to education and to humanity.

As a matter of fact, not seldom does it appear that the very age of a foundation makes it difficult for it to adapt itself to fresh needs; that the very richness of its treasury makes an institution unresponsive to new opportunities. In such cases endowments dry up and cease to have value. Much better would it be for such establishments to expend themselves while they can recognize and meet existing demands than by restricting such early work to preserve funds for unadapted and ever diminishing service.

Furthermore, it should be borne in mind that only by expending and so reducing the financial wealth can the hospital increase its value to the community in scientific advance, in education and in humane care. And it is for those services, not for the accumulation of property, that such institutions are created.

Look, for example, at the case of La Charité. For years thrifty trustees had been laying by small surplus sums. When the new nursing school was proposed it aroused the greatest anxiety in the souls of the more cautious directors. There was much shaking of heads and studying of ledgers. "We can lay by ten thousand francs a month," the reactionaries said, "if we simply go on as we are now." "And no one knows," the treasurer cried, "but that these new fangled plans may eat up all our recent savings and even eat into our ancient endowment!" Only by reducing the book assets of the treasury could real wealth in care of patients and education of nurses be given by this hospital to Lyons and to France.

There is a direct ratio in such a case between the riches of the treasury and the poverty of service; the reduction of funds and the increase in the real wealth of the community served.

In another and very material way does expenditure increase wealth, that is, by attracting new resources to support new features or improved standards. Every hospital trustee has had the experience of seeing new ventures bring in new support, often in quantities that far exceed the extra expense of the specific project.

A further consideration in behalf of creating wealth by expending funds applies peculiarly to medical and health agencies. As all available resources are expended in giving the greatest possible service in curing and preventing disease, in educating doctors and nurses and in furthering science, it is fair to remember that health itself is or may create wealth, that knowledge is power and that the extension of science often extends widely both the bounds of service and the means of giving that service. To take a couple of simple, striking cases: may it not be better to exhaust all available funds in

eradicating typhus in a district of the East, than to preserve an endowment to give hospital care to continuing cases? In a village of the South may it not be sound finance as well as good hygiene to use all present assets in eradicating hookworm, relying upon the increased wealth of a revived people to assume the burdens of the next generation?

If trustees are to be influenced by such principles as I have suggested they must of course be truly interested in the community to be served and in its needs rather than chiefly in the prestige of the particular institution with which they may happen to be associated. One of the astonishing exhibitions of the competitive impulse is the institutional rivalry between organizations originally created to serve the common good. Occasionally, also, moved either by competitive motives or the corporate instinct of self preservation, hospitals established to relieve suffering and promote health and education maintain shockingly unhygienic working conditions, actually make new suffering by driving harsh bargains with labor and exploit for cheap service the pupil nurses. This anomaly tends to disappear in direct proportion to the breadth of view of the trustees responsible.

Incidentally, it is well to remember another interest both of the community and of the institution, that is, the question of the ability of a given board of trustees to discharge its duties. Every board should periodically examine itself, coolly and as objectively as possible, to make sure that it is adequately in touch with the real problems of its institution, both those of finance and those of professional service; that it is not made up exclusively of men of old age or of any other special or narrow group; that it is refreshing its councils by adding from time to time to its membership new blood and fresh perspective.

We have been considering, for the most part, very general principles. It would be folly to attempt to suggest specific canons in the matter of accumulating or expending funds with any idea that these would be universally applicable to different types of institutions under widely varying circumstances. Individual groups of trustees, however, in making decisions concerning their own institutions may do well to keep in mind the various general methods of financing which are in wide use.

There is, first, the restricted endowment. The sum left at Oxford during a famine, providing that a half loaf of bread be left every morning for all future time at the door of each student of a certain college group, is an extreme instance of restricted trust. This half loaf still scrupulously placed each day before each door in a group of dormitories strikes one as being scarcely the most fruitful use of funds in a great educational center. Another instance is the

Dudley endowment for an annual lecture at Harvard University on Natural and Revealed Religion, Corruption of the Church of Rome and Validity of Presbyterian Ordination—a foundation on which it is rumored that Cardinal Gibbons once lectured in Cambridge. This type of minutely restricted endowment is now so thoroughly discredited that many groups refuse to accept trust funds unless broad discretion is allowed in their future expenditure.

Second, there is general endowment providing perpetually for the entire needs of an institution. In the very security and ease of such a condition there is great danger of dry rot; of bureaucratic tendencies in the personnel, of disassociation from current needs. I have in mind at least four hospitals and two dispensaries whose service has actually been stultified because, having funds sufficient perfunctorily to carry on present work, the trustees are unwilling to consider revisions of program, raising of standards, or any real response to modern needs.

At the other extreme, an institution may be entirely dependent upon current contributions to meet all expenses. This is essentially the condition of state or publicly supported institutions. It represents probably too precarious an existence for a hospital depending upon private voluntary contributions.

The middle ground—on some part of which it is probably wise for trustees of privately supported hospitals to take their stand—is that where permanent endowment or accumulated reserve or working capital takes care of a part of annual expense, particularly the educational work, and guarantees continuing service at adequate level, while current revenues and regular contributions year by year and generation by generation meet the major part of current cost and take care of buildings and new projects as these are demanded.

It is not my purpose to try to tell trustees which of these methods of financing their institutions they should follow, or to suggest how much protection should be attempted in the way of endowment, and how much reliance should be placed upon each year and each generation to bear its part of the financial burden. My purpose is fulfilled in emphasizing that endowments in funds are of value only as they guarantee that enrichment of the community for which hospitals are created. This is in a sense, I realize, a platitude. Yet it is that kind of truism possibly which should be brought up periodically for fresh recognition.

The true wealth which comes to a community from a hospital consists in the adequate care for the sick, the influence generally on medical standards and public health, the advance by research in the sciences of medicine and hygiene, the high and broad educational facilities for nurses and medical students.

In hospitals, and generally in health and educational agencies, especially apt is that scripture which declares that they who save their lives shall lose them and that only they that lose their lives in a cause really find them.

DIGEST OF OPINIONS OF HOSPITAL PRESIDENTS AND
DIRECTORS OF COMMUNITY FEDERATIONS ON
THE HANDLING OF ENDOWMENT FUNDS.

Mr. Alfred C. Meyer, President, Michael Reese Hospital, Chicago, Ill.

Question I.

Shall Hospitals Have Permanent Endowment Funds?

Yes. Thirty-one replies were unreservedly in the affirmative.

Yes; but funds should not be too closely restricted in purpose. Hospitals will always be needed, and endowments make possible a greater amount of free work and also permit some research work to be done.

Yes; three writers emphasize that there would be much less free work done if there were no endowments.

Yes; writer feels that hospitals would not be progressive and would not develop into new fields, if earnings and special gifts were sole sources of support.

Yes; because of high operating costs, writer feels that hospitals need endowment funds, not only to enable free work to be done, but also to permit reduced cost for patients in moderate circumstances.

Yes; but writer feels that community should be more and more informed as to kind and character of work hospital is doing.

Yes; but writer, seconded by superintendent of his hospital, feels that efforts should be made to convince living donors that they should give money for immediate purposes of the hospital, rather than for permanent endowment. Failing in this, of course, funds are accepted for latter purpose.

Comment.

There is practically a unanimity of opinion among those contributing to this symposium, that hospitals should have permanent endowment funds.

Question II.

How Shall Permanent Hospital Endowment Funds Be Invested?

The following practices are those now in vogue in the hospitals and federations represented in this symposium:

Safety of security first consideration; rate of return secondary; bonds preferred.

Endowment funds should be invested by capable business men of considerable experience, without special restrictions.

Investment committee composed of members of the governing board should buy only first-class securities—those with a minimum of risk.

The funds should be invested in well diversified real estate bonds; a small proportion in industrial bonds; the balance in municipal, state and federal bonds. Safety of principal first consideration.

Three say that their funds are invested by committee of board of trustees, composed of bankers or business men familiar with investment of funds. Investments should be made in conservative securities giving fair yield with reasonable safety.

Funds should be invested by executive committee of board of trustees. First mortgages on real estate and government, state and municipal bonds recommended. Special approval of board of trustees must be secured before investments can be made in industrial securities.

Moneys should be safely invested, as surplus funds in a business would be.

There should be a finance committee of the board, restricted to investments legal for trust funds.

Investments should be in bonds of approved quality and standing.

Bonds that are legal for savings banks are the only forms of investment we make.

We invest all our funds in first-class bonds and mortgages.

There is a committee of the board which purchases only gilt-edge securities.

We buy only bonds that are legal investments for savings banks.

Our investments are in bonds and first mortgages exclusively.

We have a finance committee purchasing substantial and conservative bonds and sometimes stocks.

Federal, state and municipal bonds, and bonds in conservative public utilities.

Finance committee which purchases bonds only.

Four bank presidents constitute Endowment Fund Investment Committee and investments must conform to state laws for trust funds.

Funds should be invested in "widows' securities."

Special investment committee which buys securities of trust fund caliber.

First mortgages on real estate, first-class railroad bonds and United States Government bonds.

We have a committee of bankers which is not restricted to type of investment.

Government, municipal and state bonds.

We purchase only securities legal for savings banks.

Matter is left to judgment of board of trustees.

Government, state or municipal bonds.

Finance committee makes all investments, which, however, must be approved by board of trustees.

Bonds and mortgages.

Mortgages, government, state and municipal bonds.

Comment.

Considerable caution and conservatism are displayed by the various institutions represented in the above replies. The outstanding feature is the desire to guard the principal sums very carefully, and most boards of directors seem to feel that industrial stocks, and, to a large extent, industrial bonds, should be avoided. If permanent endowment funds are to be encouraged, every effort should be made to safeguard them, and the sentiment among boards of directors is strong that there is too great fluctuation in the margin of safety of industrial enterprises. This is particularly true in such smaller communities as are largely built up around some particular industry. If this industry is depressed, not only do the inhabitants of the town become financially weakened, but the hospital counting upon income from this industry for partial support suffers a shrinkage in endowment income also, just at a time when it should be strongest financially. Finance committees are favored, and if the hospital is small and there is no banker on the board of directors, it seems advisable to use one or more bankers in a consultant or advisory capacity. Of course, some hospitals are fortunate enough to have, as members of their boards, exceptionally able and conscientious financiers, who can disregard all the above safeguards; but these conditions occur rarely and boards must be alert enough to know when these special advantages have ended and should be prepared to go into the more conservative forms of investment at such times.

The by-laws of each hospital should specify the type of investment permitted for its endowment funds and the method for making such investments.

Question III.

How Shall Permanent Hospital Endowment Funds Be Safeguarded So That the Purposes for Which the Donors Gave Them Shall Be Carried Out?

The following are excerpts from the replies received:

Indorsement committees representing chambers of commerce or public boards should give attention to this point in connection with their investigations, for indorsement. It should be the duty of state

boards of charities and corrections, or some other such public board, to check up endowment funds given for charitable purposes.

Ten expressed the opinion that the character of men and women constituting the board is the best guarantee possible.

Funds should be carefully watched by trustees, but donors should permit change of purpose under certain conditions.

A writer says that it is his opinion that there is great danger in the establishment of permanent funds so restricted that the income cannot be diverted to new needs when old needs cease to exist. Testator, or donor, should have sufficient confidence in trustees of hospital to give board reasonable latitude in the use of funds. If testator, or donor, is unwilling to do this, moneys should be left to some foundation or trust fund for administration and direction.

Several reply that considerable latitude should be permitted boards of trustees to alter purposes of gift, when changed conditions warrant.

State comptrollers should exercise some supervision over investments and expenditures of income from such funds. In addition, there must be confidence in the character of such trustees as may from time to time administer the hospital.

By the governance of a finance committee appointed from the board of trustees.

There should be a finance committee whose business it is to see that pledges given when gifts are accepted are carried out.

Such gifts should not be accepted unless complete compliance is assured and provided for.

Books should be audited by expert accountants to see if promises are kept.

Three on the list think that the best plan is to entrust funds to community foundation, the trustees of which shall have authority to divert to other purposes than originally intended, as conditions warrant.

Character of trustees should provide for this; but times and conditions change and endowment funds should have as few restrictions attached to them as possible.

One hospital has an endowment fund committee composed of four bank presidents, who have the responsibility of seeing that such pledges are kept.

Annual audit is recommended to determine whether conditions are being complied with.

One hospital president does not believe in endowments for specified purposes.

Comment.

The general feeling is that enough confidence should be felt in the trustees or directors of hospitals to entrust the matter to them. Some feel, however, that because the personnel of boards change, an outside agency, like the state, or an auditing company, should check up the funds from time to time. More leeway should probably be given to trustees in spending the income from these gifts than has been the custom. Rigid specifications are not advisable when funds are to continue for long periods of years, as conditions change so. Persons reading this report could probably adduce many instances of funds that have outlived their usefulness and which could be diverted to beneficial purposes were not the conditions of the original gift so inflexible. Prospective donors should be educated to the view that trustees of hospitals should be permitted to alter terms of gift, with certain reasonable checks; and trustees should so educate themselves as to be worthy of such trust.

Digest of opinions expressed by the following persons:

A. D. Baldwin, President, Babies' Dispensary and Hospital, Cleveland, Ohio.

W. T. Barbour, President, Grace Hospital, Detroit, Mich.

Fuller F. Barnes, President, Bristol Hospital, Bristol, Conn.

Charles D. Barney, President, Hahnemann Medical College and Hospital, Philadelphia, Pa.

Mrs. Morris B. Belknap, President, Children's Free Hospital, Louisville, Ky.

E. V. Benjamin, President, Touro Infirmary, New Orleans, La.

C. S. Blackwell, Chairman, Toronto General Hospital, Toronto, Canada.

Homer W. Borst, Executive Secretary, Community Chest of Indianapolis, Ind.

Otto F. Bradley, Executive Secretary, Minneapolis Council of Social Agencies, Community Fund.

Dr. E. M. Brown, President, St. Alban's Hospital, Sheldon, Vt.

Asa G. Candler, President, Wesley Memorial Hospital, Atlanta, Ga.

Raymond Clapp, Secretary, Investigating Committee, Cleveland Community Fund.

C. B. Clark, Treasurer, Theda Clark Memorial Hospital, Neenah, Wis.

Edith Cushing Marshall, President, Hospital for the Women of Maryland, Baltimore, Md.

Paul L. Feiss, President, Mt. Sinai Hospital, Cleveland, Ohio.

Rev. H. L. Fritschel, Milwaukee Hospital, Milwaukee, Wis.

L. A. Halbert, Executive Secretary, Council of Social Agencies, Kansas City, Mo.

Hugh A. Herdman, Executive Secretary, Portland Community Chest, Portland, Ore.

F. G. Hogland, President, Swedish-American Hospital, Rockford, Ill.

M. M. Holmes, Trustee, Olean General Hospital, Olean, N. Y.

Miss Emma F. Ingalls, Treasurer, New Hampshire Memorial Hospital for Women and Children, Manchester, N. H.

Mrs. W. B. Johnson, President, Rome Hospital, Rome, N. Y.

Dr. S. E. Josephi, Treasurer, Hospital of the Diocese of Oregon, Portland, Ore.

Guy T. Justis, Social Service Secretary, Denver Community Chest, Denver, Colo.

John A. Kenney, M. D., Medical Director, Tuskegee Normal and Industrial Institute, Tuskegee Institute, Ala.

Sherman C. Knigsley, Executive Secretary, Welfare Federation of Philadelphia, Pa.

Oscar W. Kuolt, Service Secretary, Rochester Community Chest, Rochester, N. Y.

E. J. Larrick, Executive Secretary, Better Akron Federation, Akron, Ohio.

David C. Liggett, Director, Welfare League, Louisville, Ky.

E. Mallinckrodt, President, St. Luke's Hospital, St. Louis, Mo.

C. A. Mallory, President, Danbury Hospital, Danbury, Conn.

W. J. Norton, Secretary, Detroit Community Fund, Detroit, Mich.

Herbert Parsons, President, Memorial Hospital, New York City.

Samuel Sachs, Chairman, Finance Committee, Montefiore Hospital, New York City.

Elwood Street, Director, The Community Fund, St. Louis, Mo.

Chalmer B. Traver, Executive Secretary, Centralized Budget of Philanthropies, Milwaukee, Wis.

F. A. Winter, Assistant Secretary, Board of Trustees, St. Luke's Hospital, Bethlehem, Pa.

MR. CLARK: There seems to be a very general consensus of opinion as to the mechanics of handling endowment funds, as to the creation of endowment funds, as to the form of supervision, as to the restrictions that should or should not be placed upon endowments. It seems to me, though, that the subject goes a little deeper along the lines that Mr. Embree has suggested, namely, how much endowment for hospitals is justified? I have come in contact during the last year or so with several hospitals in the West, and I am very sure that some of them are practically kept afloat by endowments; they were not making headway, they were

simply subsidized. That, it seems to me, is a mistake. The problem of the university hospital and its endowment is undoubtedly different from that of the private corporation hospital. The university hospital naturally is connected with and in very close relation to a medical school. Therefore, the relationship of the teaching, the research, etc., undoubtedly makes endowments necessary. Beyond that, as to the simple charity that is given by so many hospitals to the poor, it seems to me that there enters the question as to how far the state—and by the state I mean not simply the political state, but the counties and the municipality, or the representatives of such bodies, such as the community chest—should render this support. Should not endowments, current maintenance, come from such sources rather than from actual private gifts to individual hospitals? Many hospitals have been over endowed, so that they are becoming top heavy, they are not progressive. Perhaps if they were forced to become, shall we say commercialized in some respects, and earn a great proportion of their income, it would prove to the community chest—which is in most cases a live, up-to-date organization—the needs of most of the hospitals and medical organizations. Are they not a better judge than we are today of what the needs, both present and future, are going to be? Can the man today who is giving a gift to hospitals, give it and *specify*? Does he know what the needs of the hospital twenty-five years from now will be as well as the community chest or similar organizations of that nature may know? I would like very much to hear that particular angle of the question discussed here tonight.

MR. W. C. RAPLEYE: The purpose of an endowment is to provide a dependable, relatively constant source of income from the investment of capital. Such income may be restricted to cover specific activities or may be left for general purposes, the latter method representing an essentially mobile income supplementary to current sources of income. In the hospital field the current sources of income are derived from revenue earned for the care of patients, (regardless of whether the payment for such charges is made by the patient, his relatives or friends, by the national, state, county or city government, a fraternal lodge, insurance company or employer) and, in addition, from such sources as the community chest, guaranty and sustaining funds, drives, donations and gifts.

The economic condition of the average American community is such that each community can probably carry its own program of health and hospital service if that program is sound. The majority of hospitals cover from 50% to 80% of the expenses incident to the care and treatment of patients from revenue earned for such care and treatment, and the additional income needed can be and usually is met from other current sources. Endowment income is most

wisely used in carrying on educational work with such professional groups as nurses, medical students, physicians, etc., in investigation of methods of preventing disease and conserving health and in the demonstration of new methods in these fields. When, and if, such new methods are accepted they should be absorbed as an additional expense to be met from current income, thereby liberating the endowment income for new projects.

In passing it is interesting to note that the ineffectiveness of the American hospital planning and administration represents an annual financial loss to the American public which is considerably larger than the total income of the twenty large endowed foundations in the United States, including the entire group of organizations founded by Mr. Rockefeller and Mr. Carnegie as well as such groups as the Milbank Foundation, Russell Sage Foundation, Thomas Thompson Trust, Cleveland Foundation, Commonwealth Fund and National Research Council. This is merely one way of saying that the lack of a plan and a policy for the American hospital represents an annual loss larger than the income from endowments which total over \$800,000,000.

In closing may it be said that it is not so much endowment which the American hospitals need as it is a plan and a policy which will eliminate an annual financial loss, which, if saved, would make possible a development of the hospital field which an endowment of a billion dollars could not accomplish.

MR. CLARENCE E. FORD: The assertions made as to the amount of waste are so astounding that I am moved to ask on what basis was the conclusion as to the amount of waste arrived at?

Before the question is answered, may I say just a word in reference to the lack of full utilization of hospital beds, which I assume is the principal item of this alleged waste. The statements made do not take into account the seasonal incidence of disease. It is my opinion that a chronic hospital may be utilized to possibly 95% of its capacity. A general hospital, treating acute diseases, if it fills 85% of its beds on an annual basis, is fully utilized, while a contagious disease hospital is fully utilized if its annual report shows that 50% of its beds have been occupied because almost all of the demand for its service comes during a few months in the winter.

With that much of explanation I would like to ask from what sources has come the information on which these remarkable assertions are based?

May I add one word with reference to a matter concerning endowments? It has come to our attention in the State of New York that in many instances the treasurer is the custodian of the securities in which the endowment is invested. In one large institution in that State the treasurer hypothecated those securities of the

institution to borrow money for his own business. Afterward his business failed and the institution sued the bank which had the bonds, but was unable to get back the securities. The institution's endowment, therefore, disappeared with the securities. I mention lack of care in safeguarding the securities in which endowments are invested as a possible cause of loss to any charitable institution.

MR. RICHARD P. BORDEN: In one of the schools of New York a teacher of English asked the question one day, "Children, who can tell me what is the difference between a cynic and a stoic?" One of her pupils, one of the newcomers, raised his hand, and said, "I can, teacher." "Well," she said, "what is it, Israel?" "A cynic is what you washes your hands in and a stoic is what brings the baby." The question to that youngster as to the difference between a cynic and a stoic was a somewhat academic one. There is a difference which is obvious, however, and that is that there must be a radical difference between a hospital trustee and a cynic or a stoic. A hospital trustee cannot be cynical about the needs of humanity, he cannot be cynical about the person who is desirous of bestowing an endowment upon it; he cannot be stoical about the sufferings of the people that come to it. The trustee must in every way plan for the best advantage of those who need to use the hospitals. I am ready to admit that a great deal of money is lost by improper management and planning of hospital procedure. More money would be lost if it were not that some years ago the superintendents of hospitals endeavored to organize an association which would plan for the building, construction and maintenance of hospitals in a businesslike way, and if the trustees of hospitals who are responsible for this tremendous waste which is alleged to be due to the improper planning of hospitals would foster a businesslike institution whereby plans could be more properly made, perhaps that waste would not continue so great as it seems to be.

The question has been raised as to whether there is such a tremendous waste because of the building of hospitals when they are not needed, with the statement of the large percentage of beds that are not occupied. I am sorry that I didn't know that that suggestion was to be brought forward tonight, because some years ago there was a study made as to what percentage of unoccupied beds in hospitals were an actual exhibition of bad management and planning. Perhaps my own hospital may be an illustration. A few years ago the original buildings were found to be so fully occupied that it was necessary to plan an addition. In planning that addition we did not put up a new building constructed to meet the immediate demands at that time—we built at that time accommodations that were greater than we anticipated would be needed within the next few years. As a result our bed capacity for a certain time was far

in excess of the actual needs. Now, we are frequently at a loss to find accommodations for the people who need hospital treatment. Of course, we might have planned to build ten beds additional this year, ten beds additional next year, and then if we found out that those were occupied, twenty beds additional two years thereafter; but I have a suspicion that if we had built that way the trustees could rightfully have been accused of improper planning in hospital construction.

Another proposition is this, that in every service in the hospital there must be leeway for the unexpected guest. We cannot tell people to leave because another guest wants to occupy the room. Between the incoming and the outgoing visitor there must be a certain delay which we never can catch up with. We have an average of about 20 orthopedic children who every year are in a condition to be sent to a summer camp. Every time we send those children to a summer camp 20 beds in our hospital are unoccupied until their return. That counts against us as a percentage of unoccupied beds. We notice in our maternity ward a certain difference. Sometimes the maternity ward is full to overflowing; sometimes there is plenty of space. And remember that when one patient comes into the maternity ward we immediately expect two, and so the reserve capacity of the maternity ward must always be multiplied by two.

I realize that there is some waste in the planning of hospitals, but I am speaking of this now lest some of my fellow trustees might be led into undue caution as to advocating the construction of additional buildings, because of the fear of this excessive waste from unoccupied beds.

As to whether hospitals should have the control of the endowment funds: I notice during the last year three items of tremendous value to the people, which have largely been made effective through hospital work. Last night the representative of a hospital in Chicago told us about the development of a new anesthetic which apparently will increase greatly the comfort of the patient, and undoubtedly will also save many lives in cases where the former anesthetics could not be safely used. You all know of the tremendous benefit of insulin, which has been developed so that it can be safely adopted through its tie-up in hospital practice. Recently there has come to knowledge a method of treating pneumonia, and that method of treating pneumonia was tested in the Bellevue Hospital in New York by assigning one ward to control cases and another ward to cases where the new treatment was administered. Now those are necessities of undue demands on some of the larger hospitals; but even in the smaller hospitals in the community there are new methods which have to be adopted by the hospitals in advance of the general adoption of the method by the profession. Money has to be spent to

procure the necessary methods and apparatus, and until the population gets educated up to an economic use of the new facilities added, it means an additional strain upon the pockets of the hospital. All of these items and many others are legitimate needs of an endowment fund, and it seems to me that the wise testator or a wise administrator can with safety choose a hospital in his community, relying, as he ought to have the right to rely, upon the management of that hospital to use the funds of the hospital for the purposes for which they should be used for the development and advancement and furtherance of the science and methods of healing in that community.

MR. WRIGHT, of Bellevue Hospital: I think the caution thrown out by Mr. Embree is timely, irrespective of whether the figures may be exact or approximately correct. There undoubtedly is a large amount of waste in failing to sense the problems of the community in the actual operation of the hospital, and in its enlargement. Undoubtedly hospitals many times are injured by endowments. But there is a question that arises in my mind with regard to endowments which I think is worth consideration, and that is, are there not certain phases of hospital work which in quite a measure correspond to the work done by medical colleges? We clearly recognize that a medical college must have an endowment in order to be carried on, in other words—that scientific work sort of appeals to the mass of the people; but it is hard to get them to contribute to the purpose. Endowments for medical colleges and colleges generally must come, in the main, from large donors whose imagination is stimulated to that point. Is it wiser to have an endowment which would cover the scientific side of the hospital, making our appeal thereafter for the humanitarian work? Of course, the scientific work is just as humanitarian as the rest of it, but we cannot feature it quite that way.

I am wondering whether one illustration that has arisen in New York in the last two or three years might be repeated here and be of a little value. The Vassar Hospital received nearly a million and a half dollars about thirty years ago. A college plant was built in addition to the endowment, a staff was employed, and for years it continued under that general method of management, doing, on the whole, a very excellent work, and through the whole history has done very excellent work. These intern resident doctors gradually grew older as the rest of us do, and migrated out into the community, and they had quite a pull when they went out into the community to practice. They naturally got the local practitioners a good deal aroused by their years, until there grew up in that community a very intense feeling against the hospital, which we can all of us appreciate. After a time the demands of the community, the needs of the community, so grew that the hospital couldn't meet them as it used to meet them. It never would accept pay from even the richest of the

citizens if they came there, because it was endowed to carry everybody. But gradually the expenses ate into the endowment until it grew somewhat smaller, and a younger board of trustees said to themselves, "Now we have either got to appeal to the community or use up the endowment," and they asked the community which they should do, appeal to them or use up the endowment, and the reply came back, "Use up the endowment." And then the question arose, "How much of the endowment should be used up?"—whether it all should be used up, and the matter was pretty seriously considered, and after mature deliberation they decided to set aside \$500,000 as a fund, the income from which should be used for the scientific work of the hospital, and they would use the rest of the money for different purposes. Now, they would be in this position: They would have the \$500,000 and they would have the income which would carry on a pretty good part of the work in a hospital of that size, and then they will call upon the community for the maintenance of the hospital otherwise than the scientific work.

I am not sure but that hospital is now in a very much better position than it was before, and I am not at all sure that they wouldn't be in so good a position if they hadn't the \$500,000 for the scientific work. I am wondering if there isn't a line right along there, where we might wisely consider that we could judicially get money for the scientific side of our hospital (which doesn't appeal to the imagination generally), and then depend upon the gift of the citizens day by day or year by year to get our running of our hospital. I think there is something along that line worth considering, possibly.

MR. GEO. S. HOFF: I wonder, inasmuch as I come from a small town and a small hospital, if these gentlemen talking in big figures and big hospitals haven't shot clear over our heads. The small hospital, as a great many of us know, finds very little disadvantage in the endowment. We find great advantage in an endowment. I can understand, being a business man, and not much of a hospital man, that you may place in the lap of the young man an immense fortune and ruin him, just as these men are talking about an immense sum of money given to the hospital and killing its very usefulness. But in the small hospital that struggles year after year for money to build the additions and get needed equipment and finds itself at the end of the year short of funds and no money to pay with, they find a great advantage in the small endowment, the proceeds of which may be used to meet this deficit. In our own institution we have an endowment of probably forty thousand dollars, accumulated in the last few years. A large part of that money was given to us by a wealthy gentleman, and the only restriction he put upon it was that the proceeds of that endowment should be used

to pay the deficit for poor people who were not able to pay, preferably women, but no restriction other than that.

The larger part of our endowment is unrestricted, handled by a committee (of which I am a member), to invest and turn annually or semi-annually to the superintendent to meet just such deficits. Those endowments, with the institution that is small and struggling for an existence, ought to be encouraged, and the rich people of the community ought to be encouraged to give them as a bequest or an outright gift to help the struggling institution meet the deficit that it must have every year, because most of our hospitals that are public institutions, such as ours, never pay out. We have got to have more beds than we use to meet the emergency. We know that. You build an addition, and you cannot build it for today. We built one a few years ago and thought we were building large enough to meet the needs for ten years, but before we got it hardly equipped we found we were not big enough. And that story will prevail everywhere, almost. But, to my mind, most of the trustees of this meeting tonight are not troubled with the difficulty that Mr. Embree talks about in the Rockefeller Foundation, where they have immense sums of money. We dig and work with the little amount, and it is the big deficit at the end of the year that this endowment helps. We don't feel that we are affluent or wealthy and have money to burn.

DR. J. L. ANDERSON: Mr. Chairman, I am reminded tonight of that thrilling poem written by the Norwegian doughboy, taking for his subject "The Frog." It runs something like this:

"What a funny old bird the frog are,

When he sit, he stand, almost;

When he hop, he fly, almost;

He ain't got no sense and he ain't got no tail either, hardly,

And when he sit, he sit on what he ain't got, hardly, either, almost."

Mr. Chairman, I confess I am greatly disappointed in the discussion of this subject tonight. It leaves us, like the frog, with nothing to sit on. I came here tonight, as I venture nine out of ten in this room came, to learn something about raising money for hospital endowment, and we are told that we do not need to raise money, that an endowment is a very bad thing. While we are worrying as to where in the world we can find money to meet expenses and pay our bills at the end of the year, these experts are telling us that hospitals already have too much money.

Now, Wesley Memorial is a hospital of 275 beds, which is perhaps a little above the average size, and we have about \$1,400,000 endowment, which is considerably above the average endowment. We usually run between 80% and 90% capacity, yet there are times when we haven't a bed in the house into which we can put a particular patient, while some other department of the hospital might not

be filled to capacity. That is, we might be forced to turn away a surgical case, while at the same time there are empty beds in the children's or maternity wards. You can readily see that we could not put a grown person in the children's ward nor a surgical case in the maternity ward.

I had this experience. A cousin of mine came from Indiana—a medical case. There was not a bed for her in Wesley, there was no bed in the Presbyterian Hospital, and after two days waiting we found a bed for her in Mercy Hospital, and they told us it was the only empty one they had. I am told that the great majority of hospitals in Chicago are that crowded.

The income from our endowment, about \$65,000 a year, is used for free bed service, as we call it; some places it is called charity for the sick poor. This year our charity, or free bed service, for the sick poor will cost us about \$100,000—with which we are caring for about 3,000 people. Now, if you will divide 3,000 into \$100,000 you will see that the average cost is a little less than \$35.00 per person, for a bed, meals, nursing, dressings and medicines—not a very large cost for caring for a sick person, especially when you remember that these patients stay in the hospital for an average of fourteen days each. Fourteen days of hospital care for \$35.00 is not an exorbitant bill, and yet, these experts come here and tell us we are wasting money.

You remember I told you our income from endowment is about \$65,000 and our free service cost us this year about \$100,000. Where to find this extra \$35,000 is our task, and even then we are not able to care for all the distressed poor who come to us. Yet these experts tell us we are over endowed. They tell us we have too much money. They say we are wasting money because, forsooth, divided among all its departments, some 10% of the beds of a great hospital are not in use every day.

What we are looking for here tonight is a plan, or even hint, as to how we can raise more money to add to the income from our endowment, or how our present endowment may bring us a larger return. Our endowment is taken care of and safeguarded by the Harris Trust and Savings Bank, one of the foremost and safest commercial institutions of the city. Under their management it returns us not quite five per cent.

Wesley Memorial Hospital needs tonight double the amount of money it is receiving from present endowment. And if we had ten million dollars we could use it without waste for new equipment and endowment for helping needy humanity. We would use it nursing back to health broken, wounded, sick, poor people. We would send men back to their homes able to support their families. We would send mothers back, able to care for their children. We would save

the lives of children that they might later take their places as useful citizens. Do you call that a waste of money? And where we are located the only limit to the number of worthy poor people we can help is the limit of the amount of money we have to expend.

And, ladies and gentlemen, I say that is not a waste of money. If these experts will tell us how we can get more money, we will invest it in the lives of worthy men, women and children, giving them stronger bodies. We will send these people back home to make better citizens. We will send them back to care for their families and become self-supporting. We will send them back to earn money to help provide hospital care for some other unfortunate who is needing it, just as they needed it when they came to us.

MR. FRANK E. BROOKE: We have a plan that I think bears upon this subject, and I should like to ask some of these wiser gentlemen than I to think about it. Every patient who enters into the hospital is charged upon a card in full for his service. At the end of the month we find out the total amount of the charges we have made against patients. We have for a number of months found that those charges, if paid, would have carried us through without any other funds. The expenditures would have balanced the total charges. Now we don't collect all of this money, because, although we have a credit department, we do a large portion of our work as free work—we aim to be a health agency and a charitable agency. We do get about 60 per cent of this money, so that about 40 per cent of the work that we do for patients is actually free work. Our laboratory and some of our other departments we still consider to be in the educational stages, that is, we are still educating some of our medical staff to use the laboratory a little more than they have done in the past. We have an endowment, small, which probably pays the deficits in these educational departments. We go to the community and ask the community each year to meet our other deficit. For the last four years the community has been ready to meet it, has raised the funds to do it. Up to the present month we would have been entitled to receive from our community funds about \$27,000. We made a monthly report to the federation which showed that we did not require during those months but \$18,000, and we did not feel that we could demand from the community any more than we actually need. Now that is the way we are operating so far, and I do believe that in a community—especially a small community such as we are in—where you can go to each member of that community and get something from him, you can depend upon it that if you can show you are doing the work, the community will come across to pay the deficits year by year. I have had only four years' experience, and I want to know whether these older men think that we are riding towards a bad fall.

MR. ROBINSON: In hospital activities where the expense runs up to six thousand dollars a week, and the income must be taken on faith, largely, or in other words, acquired by the activity of the financial secretary, through the payments from the patients, and through the income from the endowment, we manage to take care of it. Mr. Babson some time ago in Cincinnati said that you want to bite off more than you can chew and chew it, and undertake more than you can do and do it. Now that is the situation, I apprehend, with most of our hospitals. We have to go largely on faith, and I don't know any other way to get money towards an endowment or to take care of a current expense but to go for it and get it, go to the people or write to them, plead with them in pulpits, see them personally, and they are ready to respond. I went to a Catholic merchant, a wholesale merchant, one Saturday night in Cincinnati when I was very tired. I had been getting scant results, I wanted to get some special donations in the way of supplies for blankets and for sheets, and I told him what I wanted and he said, "Well, I will help you. I will give you what you want." He said, "Now come and see me again." And in a few months I went back again and he said to me, "Well, now, I will help you again." He said, "I am a Democrat, and I was in the army, and I'm a Catholic." But I wasn't there after ecclesiastics nor politics—I was there after bed ticks, and I talked with him for a while, and he said this: "Now, we all want to get into Heaven, and if we get in we have got to do good works, and I propose to get in."

I come in contact with a great many people of that kind who propose to get into Heaven, and they recognize the fact that they are here to serve humanity, and they are not going to take any chance of missing because they don't do their duty. I went to a farmer—I walked three miles across the country early in the morning, because it was the only way I had to get there, and I knew if I got him I would have to get him before sunrise—and when I got to his house he was just going from his house over to his barn. I asked him if he would give me a chance to talk with him for a few minutes, and he went back to the house with me and I talked with him for about twenty minutes and he sat quietly listening to me and didn't say a word, and then I stopped talking, and he still was quiet, and I said to him, "Now I want you to give me ten thousand dollars," and he sat still and didn't say anything, and then I sat there and prayed like sixty that he would do what I wanted him to do, and he said, "Well, I guess I will have to do it," and he went and got his check book and wrote me what I wanted. I am sure if he hadn't died very soon after that I would have got another five

thousand dollars out of him. (Laughter.) I don't know how to get at the situation except to go for it.

I am very greatly concerned with the outcome of this meeting. I am very greatly concerned that we shall find out how to get the money, how to get the best results. We must have endowments, I greatly appreciate that fact. We did \$74,000 worth of free work at the Christ Hospital last year, and we certainly couldn't have done it if we had not had an endowment, unless we got help from the community chest, unless we got help, hurried help, right along, from people who respond when you go to them. I have faith in humanity, and I have faith in God, and I believe in the work that we are doing. I have faith in our nurses, and I have faith in our surgeons and our doctors. It is a great thing to be in affiliation with a movement like this, that takes care of humanity in its helplessness and in its distress. I am concerned to know something about the securing of annuities, how to get them. I spoke in a pulpit some time ago and at the close of the service a woman came to me and said, "I would like you to come to my hotel. I want to see you." I went and talked with her for a little time and she gave me three thousand dollars on the annuity plan, giving her five per cent. I had a letter from a gentleman just the other day asking what per cent we could pay; a client of his wanted to insure her life for a given amount and have it designated for our hospital, and he wanted to know how much interest we would pay on a proposition of that kind—a little indefinite. I didn't just understand from his letter whether we were to pay an interest, an annuity, on what she paid on the life insurance, or to pay on the prospect of getting it ultimately. Maybe some of you have had experiences of that kind, and if so, I would like to hear about them, so I could answer that letter satisfactorily.

Dr. R. G. BRODERICK: I believe in this discussion we have gone far astray on fundamentals. Private hospitals, in their endeavor to do good, are duplicating the efforts of public hospitals.

I think we all agree that we have progressed beyond the time of volunteer fire departments. These departments perform a definite worthy function. An equally definite worthy function is being performed, at tremendous expense, in the care of sick poor by private hospitals. I feel, however, that it would be better for the public-spirited people in a community to see that the public hospitals give proper service to the sick poor, rather than donating toward burdens carried by private hospitals.

In California we are requiring our county hospitals to furnish first-class care to the sick poor and we are further seeing that beds in county hospitals are properly utilized.

If the trustees present would inquire, I think they would be astounded to find that patients are kept in public hospitals for months, and even years. There should be a proper program developed whereby patients that require hospital care for a long period are kept in chronic hospitals. You can take care of three patients in a chronic hospital for the same cost as one patient in an acute hospital. I think private hospitals and privately endowed hospitals should be interested in helping the middle class, many of whom are not able to pay the present high cost of hospital care and will not accept free service in county hospitals.

A previous speaker has referred to the seasonable variations of patients in isolation hospitals. By all means, such a hospital should be considered a public utility, where the rich, the middle class and the poor are cared for, payment being made by those who are able to do so. Such work is done for the protection of the community.

Hospital beds can also be made available by having convalescents, especially children, sent to convalescing farms or camps. In California we are establishing all-year summer camps, because we find that we can take care of them in a better and cheaper way than by allowing them to remain in a hospital.

In hospital problems we are apt to become too self-centered and not ascertain what particular type of service we can perform. The community, as a whole, should demand that public hospitals provide adequate and proper care for the sick poor.

I, personally, believe that a large portion of endowment funds should be devoted in private hospitals to paying the cost of laboratories and other scientific work, and also providing for more reasonable care of the middle class.

CHAIRMAN MEYER: Mr. Embree, will you close the discussion?

MR. EMBREE: I feel somewhat guilty. I realize now that a number of trustees have come to the meeting tonight looking for concrete suggestions that would help them get more money for the endowments of their particular hospitals. I can understand their feelings when, instead of specific information as to means of getting funds, they have been given a general discussion of hospital service with the implication that more money for hospitals was not, after all, the chief point which trustees or communities should emphasize. Where bread has been asked for and expected, stones have been offered if not thrown.

I am reminded of that kindly old woman to whom an unfortunate came barefoot in the cold of winter, begging for shoes. The woman, weeping, replied: "I'm sorry to see your feet freezing; I

can't give you any shoes, but here's a nice new bottle of shoe polish, you poor, dear man!"

In reply to the specific question as to how the figure was arrived at for the amount of waste in hospitals annually, I may say that it comes from (a) estimates based upon empty beds throughout the country; (b) estimates of avoidable slowness in turnover of available beds; (c) estimates made by Mr. Herbert Hoover of waste in public and private institutions generally throughout the country, and (d)) generalizations from studies of hospitalization in a few typical communities. While conclusions based upon such general estimates must in a sense represent an arbitrary figure, it seems likely that waste due to lack of community planning and due to lack of fullest use of existing hospital facilities is underestimated rather than over stated.

Dr. Broderick has, I believe, put his finger on a vital spot. Hospitalization in this country is still in the voluntary fireman stage. I realize that it is not very comforting to a volunteer fireman who is climbing up a ladder and risking his life to say to him that he represents an inadequate system of fighting fires. He is intent upon getting that fire put out; it is his job; he is saving lives in doing it and he is intent upon the need for more help, more ladders, and more volunteers. I believe, however, from the standpoint of the problem as a whole it is worth while to stop long enough to consider whether or not the methods that we are using to put out fires, or to check disease or relieve suffering, are the most effective. Proposing such a general consideration of the whole problem is all that I have attempted to do tonight.

I am not unaware of the irony of the situation wherein an officer of the Rockefeller Foundation comes before a group of men who want money and need it very badly in their individual institutions, and tells them that the chief need of hospitals is not endowments. It is, I realize, a bit thick for a person who does not have to go out and raise money, to minimize the importance of money in any enterprise.

My only defense is to throw the entire responsibility upon the chairman. When he asked me to speak on this subject I told him frankly that I was not the man properly to do so. I told him that I was not a trustee of an individual hospital and that I could look at these things only as they affected communities as a whole and the general public health. He, diabolical creature that he is, replied, "You are just the man that we want. We want to start something." Mr. Chairman, I congratulate you!

AMERICAN HOSPITAL ASSOCIATION

If, however, the chairman, and I, and the other speakers have succeeded in having you gentlemen stop for a moment in the excellent individual work that you are doing, and think of hospitals from the standpoint of their service to communities as a whole and from the standpoint of their relation to other agencies for medical service and public health, the evening, I think, may prove of some value.

Meeting adjourned.

THE AMERICAN HOSPITAL ASSOCIATION.

Twenty-fifth Annual Convention, Milwaukee, Wisconsin,
November 1, 1923, 9:30 A. M.

Miss M. Helena McMillan in the Chair.

NURSING SECTION.

CHAIRMAN McMILLAN: Those of us who have been attending this conference during the week, hearing the papers and listening to the reports and visiting those wonderful exhibits, I am sure have had it borne in on our minds that a hospital is really a marvelous place, and we realize afresh the great opportunities that we who are part of them have in helping to make the hospitals of the country the wonderfully good places that they are for sick people, so that the man or woman who is ill may come feeling that he is going to be made well and return to his normal life, or if that is impossible to be aided by advice and started out again with renewed courage.

We realize, also, the great numbers of people that it takes to make a hospital go smoothly. In looking over those exhibits we can appreciate the many who have put thought into making the modern hospital the place that it is, those who are responsible for x-ray and other scientific machines, people who probably never come to the hospital, whom we never see, but without whose thought and skill and science our hospitals could not be what they are.

Then there are other groups in the hospital that we see casually, each apparently working out its own problems, and perhaps there is the tendency on the part of the individual group to feel an independence, to think that each is sufficient unto itself with no common interest. If, however, we think the matter over we realize that there is vital interest on the part of each group in the work of the other. It is natural that each should carry the responsibility of its particular work, because as hospital specialists none outside the group is qualified to do so and its members must feel responsible for its own work. But just as in the home where the mother and the home itself bring together all the grown sons and daughters who have diversity of interest and different thoughts, so in the large hospital home, the hospital itself, and the patient whom the hospital serves, bring together all these different groups of workers, so that they become one big family working for the same end. In large families there is at times difference of thought, but all finally come together and when one group needs assistance the other group is willing and anxious to give it.

This morning the session deals with nursing problems, but in discussing these we believe we have the interest and co-operation of

all who are concerned in hospital welfare and that the conference is not confined to members of the nursing profession alone.

The first subject that we present is, "Why Education? The Opportunities for Service Being Offered to the Graduate Nurse." Miss Edna Foley was to have presented this and has given the subject much thought and consideration. Unfortunately Miss Foley has had a death in her family and is unable to be here with us. We regret the fact that Miss Foley is not here and we sympathize with her on account of her loss and her grief. It has given us an opportunity to present to you some of the women whom I am sure you are anxious to see, and it has made me feel very happy that when we need the assistance of our representative nurses they do not hesitate, but come when summoned, and while all of them who will try to bring out some of the thoughts Miss Foley would have presented to you after thought and preparation, do so quite without this opportunity, they will each, I am sure, make important contributions to the interest and value of this session.

The first speaker represents a new movement in our nursing education endeavor, which has been developed within recent years and by which lay groups may be given an opportunity to advance nursing. There are throughout the country several councils of nursing education. Miss Evelyn Wood has recently been appointed Executive Secretary of the Central Council. We are glad to see and hear from her this morning. Miss Wood. (Applause.)

MISS EVELYN WOOD: Madam Chairman and Members of the Conference: It is indeed a privilege to present a brief survey of the organization and activities of the Council to this assembly.

The Central Council for Nursing Education was established early in 1920 through the enthusiastic interest and activity of the lay boards of several Chicago hospitals, each of which maintained a school of nursing with high educational standards. The need of a cooperative recruiting campaign had long been felt by this group, and the demand for nurses had increased to such an extent that the supply was noticeably inadequate, so these hospital boards joined hands for cooperative action and urged other hospital boards to consider the advisability of joining the Council.

Membership is open only to institutions actively engaged in nursing education. At present there are thirteen hospitals in the Council.

The object of the Council is twofold, first, to study, maintain and promote educational standards for the preparation of nurses; second, to disseminate information concerning the educational opportunities offered by high grade schools of nursing and achievements and possibilities of the nursing profession.

The work of the Council is supported by the membership fees of the hospitals, and by contributing members, public spirited citizens

who are interested in our attempt to secure enough well qualified nurses to meet the growing demands of our hospitals and the community.

Publicity has been our main objective in attempting to attract the educated, intelligent girl of today to this great field of service. Thousands of pieces of attractive literature consisting of postal cards, pamphlets—"Know the Joy of Service, Be a Nurse"—individual hospital circulars, posters, articles in school papers, etc., are being distributed in the Middle Western states. Vocational talks, covering the need of nurses and nursing education, are being given in high schools, colleges, before parent-teacher associations, vocational guidance teachers, Y. W. C. A. groups, girls' clubs and other organizations.

The results of publicity work for schools of nursing are difficult to estimate as they may not accrue until two or three years after the efforts to recruit students are made. All of our superintendents of nurses report that a higher and more desirable type of young woman is entering our schools, and that the number is increasing. The fall classes in many of our schools are limited only by the housing capacity. The hospital schools of nursing are also receiving many inquiries from young women who have become interested through our publicity work.

The need of publicity for good schools has been recognized in other parts of the country; an Eastern Council for Nursing Education was established in New York City, the Council for Nursing Education of Southeastern Pennsylvania was organized with headquarters in Philadelphia, and a Council was also organized in St. Louis.

The activities of the Central Council are confined to the Middle Western states; inquiries concerning schools of nursing in other parts of the country are referred to the Council in that particular section.

With so many vocations opening to young women today, we must keep nursing as a vocation before the public; we must attract the young women to our good schools of nursing or they will drift into some other avenues of work.

CHAIRMAN McMILLAN: Miss Carol Martin, who has been Executive Secretary of the Central Council, is in the room. We are not going to ask Miss Martin to make an address, but we would like a few words from her telling something of her several years' experience in that work.

MISS MARTIN: Madam Chairman and members of the Conference: It has been my pleasure during the last two and a half years to go out into public to meet the various groups of young women in our high schools and colleges and Young Women's Christian Asso-

ciations, etc., and in doing that work my experiences have been very delightful indeed. We as nurses know what strides we have made, the progress that we have achieved in making our courses of greater educational value. We have established our standardized curriculum, of which we are very proud indeed; a splendid body of well organized knowledge. We have reduced the hours in our best schools of nursing to the eight hour system; we are maintaining it. We are introducing more and more well qualified instructors to teach, women who have had courses not only in nursing and health, but who have attended some college or university in which they have taken the courses and principles and methods underlying good teaching, who know something of the psychology of good teaching. Now, we have been doing that all among ourselves and various groups throughout the country. The women here on this platform have been very active in making this progress, but the public knows nothing about it.

The public still thinks of nursing as meaning long hours of work, twelve to fifteen hours, under most unfavorable conditions, and the criticism that I found most frequent as I came into contact with the vocational advisers and principals and superintendents in the public schools was that, "We object to sending young women into nursing because of the low educational value of your courses, the long hours of routine work, of little or no educational value." The vocational advisers today who are advising young women in their choice of vocations are making a careful study. They are studying the advantages and disadvantages of the various vocations, and they have been somewhat critical of the courses in nursing as they have thought them to be. Consequently, when we come into the public schools asking for an opportunity to present modern courses of nursing, they are quite surprised and they are pleased.

I have come to the conclusion that the vocational advisers in our public schools and colleges are the ones whom we have to convince concerning the educational value of a course in nursing. I think they are becoming more and more instrumental in influencing the young women in their choices of vocations. We do have to convince them that the development of the young woman's intelligence does not cease upon entering a course in nursing. I wrote for an opportunity to speak in one of the high schools in central Illinois, and I received a letter from the superintendent of schools there saying, "I do not advocate nursing for women under thirty-five years of age." Can you think of the fate of our schools of nursing if we had to wait until women were thirty-five years of age before we could even admit them as pupils? I am sure that in the future we will have the cooperation of the people who are directly concerned in working with young women, who directly influence young women, if we can convince them that our courses are of real educational value.

CHAIRMAN McMILLAN: One of the earliest agents of education of the nursing group has been the *American Journal of Nursing*. We have this morning on the platform Miss Roberts, the editor of this journal. May we hear from Miss Roberts?

MISS ROBERTS: Madam Chairman, members of the Conference: It is, of course, a very great pleasure to me to have the opportunity of discussing the *American Journal of Nursing* with you this morning, a privilege that I had not expected until two days ago. Back in the 90's when nursing was becoming professionally conscious, there was organized the association we now know as the National League of Nursing Education, a very small group of training school administrators. Following that came the organization of what we then called the Associated Alumni, now the American Nurses' Association. One of their earliest felt needs was that of a means of communication, because one of the hallmarks of a profession is the desire to share experience and knowledge. I have in my hand a copy of the first *American Journal* that was ever issued. It is my pleasure to pay tribute to the women who got it out, because every word of it was contributed by volunteer workers, women who were holding administrative positions, whose days were long, whose duties were arduous. The first editor got that magazine out for months, when she was administering a good sized hospital, and she did it by working nights and Sundays. The *Journal*, despite the handicap of a small circulation, its dependence upon volunteer workers in those early years, has never missed an issue in the twenty-three years of its existence. The first came in October, 1900.

The *Journal* has stood consistently from that day to this for nursing standards as the profession saw them. It has stood for what we call in our abbreviated American fashion, nursing education, which merely means a preparation for service in nursing. The first number carried an article on "What We Can Expect from the Law," by one of our most brilliant women, Miss Lavinia Dock, and most of you who are gathered this morning know that our expectations from the law have not been wholly satisfied yet. One of the earlier editorials remarked that this may seem a happy subject, but legislation will be the alpha and the omega of our protection until we secure legislation in all states. We have legislation, but it is not adequate in all states yet, and we are still talking legislation as a means of securing minimum standards in all states that will be commensurate with the needs of those particular states for nursing service. When we talk nursing education I am well aware that you feel as the farmer did whose new hand was questioned at the end of a day as to what he had done. He was asked if he had fed the horses, and he said, "Yes." "What did you feed them?" "Hay." "Did you feed the cows?" "Yes, I fed them hay." "You fed the ducks?" "Yes." "What did you feed

them?" "Hay." "Did they eat it?" "No, but they were talking about it when I left." There have been times when I am well aware that we have seemed to have fed hay to ducks. That has been the interpretation that has been placed upon our efforts. That was only because the angle of vision was not a fortunate angle—misinterpretation—people didn't see what they thought they saw, because never for one minute in the history of the magazine has it deviated from that early feeling that the only way to procure the kind of nurses this and other countries need is by organized courses in nursing. It is the only efficient way and as the years have gone on those courses have had to be altered and modified to meet changing conditions.

We talked eight-hour day long after it was an old, old story in industry, because we found we had to conserve the health of our student nurses. We have talked, as I have said, legislation. We have talked preliminary course, and that is an old, old story in some sections of the country, but it is quite a new story in other sections, and we have talked it because preliminary courses were an efficient means of quickly getting over an organized body of knowledge, an efficient means of getting our young women on the wards with a body of knowledge that would make them safe people to take care of our hospital patients at the same time that they were getting a further education in nursing for their future life work, in most instances outside of hospital walls.

And as time has gone on we find the *Journal* pages showing the change in thought, although this very first *Journal* carries an article on preventive medicine; we find now that our emphasis is more and more on these supposedly newer fields, we find ourselves doing what we can to further the mental hygiene movement, and any mental hygienist will tell you almost the first minute the nurse begins talking to you, that nurses don't know enough mental hygiene, that we must have better prepared women for that enormous and almost untouched field. Talk to any tuberculosis worker and he will immediately ask you, "When are nurses going to know enough about tuberculosis to stamp out a preventable disease?" Because they depend upon us to get over to the individual the knowledge which is now bound up in the relatively small group of the specialists. Child hygiene—child health—is doing the same thing. Child health associations are asking us today if we cannot put into our schools for nurses stronger courses in pediatrics, if we cannot embody in our courses in hospital schools for nurses something of the idea of positive health—that is the slogan of the present time.

And so the *Journal* through the years has tried to interpret, tried to reflect as accurately as any human instrument can, the needs of the times, particularly with reference to the preparation of nurses for a life of service in nursing. And those of us who talk nursing educa-

tion as such most strongly are in most instances women who have learned in the school of hard knocks that they have got to take the proceeds of their endowment policies, when they have reached almost middle age, perhaps, and go back and get some postgraduate work, in order to meet the demands that are being made upon them. We are not arbitrarily adding to our courses, we are adding to them because of the felt need of our times. The *Journal* is trying consistently to be an interpreter of the needs of the public to the nurse, trying to be an interpreter of the activities of nurses to the public. In other words, we believe it is our great privilege to be an expression to the world of what American nursing really stands for. We have no concern whatever with competitive or commercial journalism; we are a tool of the profession, which it is my very great privilege to represent in a small way this morning.

CHAIRMAN McMILLAN: The very first organization of the nurses of this country was started in the year of the World's Fair, 1893. That organization now exists as the National League of Nursing Education. It was the mother of this *Journal*, that Miss Roberts has just been representing. We have this morning with us the President of the National League of Nursing Education, Miss Laura Logan of Cincinnati, who has consented to discuss this same question.

MISS LAURA LOGAN: Madam Chairman, members of the American Hospital Association, it is my privilege this morning to speak to you on this topic, "Why Education for Nurses?"

You are familiar with the oft repeated remark, "Too much theory—too much theory is being crowded into our schools of nursing. Why is education for the student nurse? All a nurse needs to know is how to keep a patient clean and how to carry out the doctor's orders."

"Why Education for Nurses?" I should like to answer to that, first, by saying, "For the better care of the sick in the community and in the hospitals." Well, why is it necessary that the nurse serving in the hospital or in the community should have education?

Herbert Spencer has given us a definition for education—"A preparation for complete living." If you question the young woman of today, you will find that she is looking for ways in which she can attain to complete living. She wants first of all an education. She aspires that her life shall be complete, and if she chooses to live a professional life she wants such life in a profession that will give her a standing in the community. I refer to the type of young woman who really is the kind of product that should be put before the public for the human service that is necessary in the care of the sick in the hospital, or the care of the sick in the community, or in the preventive work in the community which the nurse is called upon more and more to do. The content of the professional education

therefore of such a young woman must be such as will command her respect and interest as well as that of the community. It must, in short, tend toward her preparation for complete living.

Perhaps my topic will be more particularly how the National League of Nursing Education is ministering to this need of education. The National League of Nursing Education should be appreciated by this body, the American Hospital Association, as the organization working for standards in nursing education for lo, these thirty years. Hospitals or hospital boards, hospital superintendents, have been and are, if you please, in the field as nursing educators. They are maintaining schools for professional education and as a purely business proposition they should be looking into the matter in every possible way to see if they are producing the professional education which should be demanded of them as institutions responsible for such professional output.

Now, we all know that in the great majority of our hospitals in this country schools of nursing have been formed, not as ends in themselves, but as a means to the end of taking care of the sick in the hospital—a very worthy end, indeed. But, after all, is it not true that in the preparation of professional people for service to the public at large, whether in the hospital as graduate nurses or whether in the field as graduate nurses serving in public health capacities, it is the obligation of the great group of hospitals maintaining schools of nursing that they remember that they are standing before the public as educators, as a body of professional educators preparing young women for a profession. There are, as you know, between seventeen and eighteen hundred schools of nursing in this country. When you think of the number of recognized schools, you realize the great responsibility of hospital boards maintaining schools of nursing, for the proper and adequate professional education of the nurse. Hospitals have assumed the responsibility for the education of the nurse, and it is up to them to discharge that responsibility to the full extent of their ability.

Now we must realize that this professional education of the nurse has grown up through the apprenticeship method, through a long, arduous fifty years of history of nursing education in this country. It has been a voluntary progress. You will recall how in 1893, the year of the World's Fair, thirty years ago, our professional group consciousness began to make itself felt, and there came into existence for the first time an organization which was intended to better nursing education—the Superintendents' Society of Training Schools for Nurses. We owe to that society the beginning of the *American Journal of Nursing*. We owe to that society the foundation of a school for graduate nurses to become teachers in nursing in the Teachers' College at Columbia University. They were the prime

movers in that big step forward in nursing education. We owe to that society the formation of a committee on education, which for years has fostered ideals and standards in the various types of nursing service.

To acquaint you briefly with the function of the National League of Nursing Education, I want to point out that as early as 1910 at the annual meeting in Boston, the subject of the grading of schools of nursing was projected by the National League of Nursing Education (which at that time changed its name from the Superintendents' Society of Training Schools for Nurses to the National League of Nursing Education). It had been observed by this organization that the great foundations for education in this country, notably the Carnegie Foundation, had contributed to the advance of medical education by the grading of medical schools. It seemed but fitting that woman in the field of medicine, serving in the capacity of the nurse, should have her process of education graded also. The Carnegie Foundation was approached at that time, but nothing was done about such a study of nursing education until that study, which was completed and reported one year ago in Seattle under the Rockefeller Foundation, was undertaken.

The big debt that we owe, and that hospitals owe, to the National League of Nursing Education is the formation of the standard curriculum. This standard curriculum was prepared and got together by the Education Committee of the National League of Nursing Education, and since 1917 it has proved a perfectly remarkable guide to schools of nursing in our hospitals throughout the country. We have a long way to go even yet. There is much to be done in even attaining minimum standards in nursing education, and, mark you, the steps must be taken slowly. Reforms in nursing education have come slowly. We are slaves to tradition, and methods which are truisms and well known in other forms of education are but slowly penetrating our professional education of the nurse. The relation of theory to practice, the proper correlation of theory and practice, is a matter which the National League of Nursing Education is taking up very thoroughly. We may be said to be trying to do research in this work of nursing education, under very great difficulties, because, if you will, the women of the nursing profession serving in the school of nursing are still having to carry the very great burden of the hospital nursing service while carrying on the education of the nurse.

In medical education this is not true and in many other forms of education this is not true.

It is time that hospitals, that communities, realized that this obligation to provide nursing care for the patient in the hospital should rest upon the community, not upon the student nurse body,

and that the proper preparation of the student nurse for professional usefulness is one of the great obligations of the community.

Another special thing that I want to mention this morning which the National League of Nursing Education has contributed to the education of the nurse has been in the formation of National Headquarters. I am especially anxious that the members here present shall know about the National Headquarters of the National League of Nursing Education. They are situated in New York City at 370 Seventh Avenue. We have at that Headquarters an Executive Secretary and an office force.

One of the main functions in our Headquarters—this function especially we carry on in conjunction with the American Nurses' Association—is a placement bureau—and we have been able to place in hospitals and schools of nursing in the last two or three years numbers of well qualified women; putting the right woman in the right place has been our object in this placement bureau.

In that Headquarters we have publications, publications which are needed by every administrative and teaching nurse in every hospital school and hospital nursing department in this country, publications intended to help and guide in the different phases of the work of nursing with particular emphasis on the nursing education.

We have at that Headquarters numberless inquiries from young women as prospective students, which makes it a very important place, a strategic place for us to guide the young women of the country in the right way.

One of the big things that the National League of Nursing Education Headquarters has been asked to do this last year has been a request from the Child Health Association to the National League of Nursing Education that they as specialists in nursing education, in curriculum building, if you will, shall advise the specialists in child care about the proper education or curriculum for the nurse in such care.

Boards of Trustees are coming increasingly to our Headquarters at 370 Seventh Avenue, asking for advice on organization of schools of nursing. Trustees of universities are coming to Headquarters when universities have been called upon to maintain a relationship, an affiliation, with schools of nursing.

Another thing, and a very conspicuous thing, that the National League of Nursing Education has been asked to do at Headquarters has been to share in a survey of the State of Pennsylvania with the National Health Council, which was asked to survey the State of Pennsylvania from all the angles that such Council would be asked to serve; the National League of Nursing Education was asked to survey the schools of nursing. The observations and recommendations coming out of that survey we hope will be of much assistance

to nursing education in Pennsylvania. I trust these remarks will serve to show you what the National League of Nursing Education as an organization is equipped to do, and is functioning already in accomplishing.

I bespeak for the National League of Nursing Education from every woman present who is engaged in the hospitals in nursing education, or in the teaching of student nurses at the bedside, membership in that organization. It seems to me that if you are really interested in fostering ideals and standards in nursing education which will redound to better service to the public, better service to the community, inside the hospital and out, you must put your shoulder to the wheel and study these problems, enter the service of the organization and help as best you can. We feel that there should be a 100 per cent. membership of women who are engaged in nursing education. The growth of the profession has been slow. We wish its advance to be sure and sane; we do not feel that we can be accused or should be accused because we talk education, education for service. Nursing is one of the service professions. Medicine is a service profession; teaching is a service profession; nursing is a service profession; the service is to the human being and it requires the highest type of young woman—not any young woman who may happen to come along who can be corralled to do a good long day's work—and if at the end of three years of such good long day's work she can, by dint of legislation keeping down educational standards in the state, be given a diploma, the hospital feels that its obligation is over—but the obligation of the hospital maintaining the school of nursing is not over—the obligation of the hospital, through the school which it has assumed is to prepare that woman for a full life of professional service to humanity. I thank you.

CHAIRMAN McMILLAN: As Miss Logan has said, for some years the nursing group, as represented by the League of Nursing Education, talked of classification and grading of schools of nursing. Some years ago a committee was formed, not with the hope that it could grade and classify nursing schools, but merely to make a systematic study of the problem. Miss Carolyn Gray was made chairman of that committee and did a wonderfully good, constructive piece of work. For that reason when this program was being prepared it seemed advisable and seemly that Miss Gray should be asked to present the subject of "Classification of Nursing Schools." Miss Gray has prepared her paper, and intended to be here this morning, but is ill, so that we must forego the pleasure of having her with us. Miss Eldredge, the President of the American Nurses' Association, another of our representative nurses, a Wisconsin woman at the present time, has been good enough to consent to read Miss Gray's paper.

MISS ELDREDGE: There have been two or three notes in this meeting which have impressed me strongly as keynotes, not in this particular meeting, but in this whole Association; first, that we are demanding of our hospitals *standardization*. What for? The patient. Standardization, that the hospital may be something more than a curative institution, that it may be an educational institution. The late Dr. Favill said that a hospital might have the best equipment that could be produced, it might have the best surgeons to operate, the best medical men to diagnose, but if it hadn't a good nursing service you could not convince the public that it was a good place. The second of the things that is so noticeable is that among the speakers who have told of the standardization of hospitals. I have heard only two who have mentioned the nurse as a great factor. The nursing profession talks nursing education, and we often hear that the nurses do not think of anything but nursing education. Well, they have had to—nobody else did—and they have thought of nursing education, as both Miss Roberts and Miss Logan have put before you, only as you think of the hospital and its standardization, its equipment, of its X-ray, its clinical and pathological laboratories, its staff, its staff meetings, and all of those things, they have thought of it only as something to give better care to the patient and to teach the nurse that she has something more to do than housekeeping, that her work isn't done when she has carried out the doctor's orders, that her work is part of the community work.

Miss Roberts spoke of legislation. Legislation is merely, if not entirely, to give the machinery to those who are put into the field to help the hospitals solve their problem of properly training the nurse.

CLASSIFICATION OF SCHOOLS OF NURSING

By MISS CAROLYN E. GRAY, Dean, School of Nursing, Western Reserve University, Cleveland, Ohio.

It is a matter of common knowledge that the only way to obtain detailed information about any particular school of nursing is to secure it from some one who is personally acquainted with the school. In the states having registration laws some information can be obtained from the secretary of the board of examiners, but usually this means only that the schools have met the minimum requirements of the law and may send their students up for registration. Standards of registration vary so widely that this may mean much or little. Nursing schools have developed under peculiarly difficult conditions. They were created to meet a practical situation rather than to serve an educational purpose. The result is that they are more diverse and individual in their standards than any other type of professional schools at the present time. Their position is

anomalous, because they are never listed with other schools, and cannot be found in catalogs, books, or any of the printed records even of our Federal Government. This condition is a real handicap, and works an injustice to the schools and communities where great efforts have been made to bring about good standards.

During the war the nursing committee of the Council of National Defense experienced many difficulties in assigning students to schools about which it was almost impossible to secure accurate and trustworthy information. As a result there were many misfits and maladjustments which were difficult for the schools and most unfortunate for the individual students. Moreover, these misfits and their experiences have furnished material for much criticism, which has been all the more harmful because it was partially true. In many instances, good schools have had to suffer for the faults of poor schools, because the public is not well enough informed on the essentials of a good nursing school to discriminate clearly between them.

Prompted by these considerations, the Educational Committee of the National League of Nursing Education in 1919 appointed a sub-committee to study the problem of classifying schools of nursing, and, if possible, to evolve a broad, comprehensive plan to be operated on a national basis.

It has been comparatively easy to collect a great deal of material about the various studies of professional education made by the Carnegie Corporation, and we have been particularly impressed by the substantial educational results accomplished through the classification of medical schools and hospitals. In the fields of secondary and college education, classification seems to have been equally successful in giving effectiveness to recognized standards and in stimulating public interest and support for local institutions.

The facts about the whole nursing situation are now readily available through the recent report of the Committee on the Study of Nursing and of Nursing Education by Miss Josephine Goldmark. Consequently it is unnecessary to do more than refer to the conclusions and recommendations of that committee and to call attention to the most urgent needs as we see them.

The report shows a steadily enlarging field of wide opportunity and unquestioned usefulness. In addition to the 120,000 or more graduate nurses caring for the sick in homes and hospitals, we have over 11,000 nurses engaged in various forms of public health work and at least 8,000 more devoting themselves to educational and administrative work in hospitals. We have over 1,800 nursing schools in this country, with 54,000 or more student nurses.

There is no question that the public is leaning more and more heavily on this group of professional women and it seems obvious

that conditions which threaten to limit the number, or weaken the training of these nurses, would react disastrously on the public health.

The evidence seems to show that there is no lack of interest in nursing among the young women of today, but there is a widespread feeling of doubt and insecurity about the quality and the conditions of training in a large proportion of our schools. The general result is that applicants to nursing schools have not increased just at a time when the need for a steady increase is greatest. It is seriously questioned whether an adequate supply of nurses can be maintained for the public service unless an entirely different feeling toward hospital training can be brought about, not only in connection with individual nursing schools, but in the country at large.

It is not necessary to repeat the reasons for the failure of many hospitals to give their student nurses adequate training. Everyone knows the difficulty of meeting the continuous and insistent demands of the hospital to get the work done at a minimum cost, and at the same time to carry out a systematic educational program.

It is perfectly evident, however, that unless hospitals can find a way to offer the same kind of assured educational advantages which are found in other professional schools, they will not be able to compete with them in attracting students. It is not only a question of doing justice to students seeking an education in nursing, but also of doing justice to the public which is to be served by these nurses, not only during their period of training, but after graduation.

The essential thing is that the prospective student shall be able to distinguish between the school of good standing and the poor school. At the present time she has no guide except the list of registered nursing schools found in many states. The fact that poor schools are often on these lists lessens their usefulness for this purpose.

ADVANTAGES OF SUCH A CLASSIFICATION

1. Experience with other fields shows just about what we may expect from such an undertaking. There is every reason to believe the response in nursing schools would be similar to that in medical schools and hospitals. People would have more interest in finding out what a nursing school really should be, and greater efforts would be made to reach the standard approved by the country at large. Community pride would be roused and probably more financial support would be forthcoming for local schools. The good school would receive the reward of its efforts in wider recognition and support and the poor school would be helped to see its defects and remedy them.

2. To the 20,000 or more young women who enter nursing schools every year, such a classified list would be an invaluable safe-

guard against exploitation and misinformation. Vocational advisers in high schools and colleges would no longer have to depend on the most casual sources of information in directing interested students to nursing schools. Even nurses and physicians are often at a loss in advising about the standing of nursing schools in any but their own immediate locality.

3. A further need which such classification would serve would be to give a basis for accrediting the work of different nursing schools. This is most important where students transfer from one school to another, and it is becoming increasingly important to the colleges which are accepting nursing students for various kinds of post graduate work. Each year a steadily increasing number of nurses apply to colleges, and ask for some allowance of credit for the work they have had in schools of nursing. They come from many types of schools, and only those who have tried to have hospital education evaluated in terms of academic credit know how difficult it is to be fair to such applicants without definite and precise information about the status and work of the schools from which they come. Small wonder that the credits allowed vary widely.

Since departments or schools of nursing are now to be found in about twenty universities and colleges, and since the movement is very evidently going ahead, the need for a classified or approved list of nursing schools will become more acute every year until it is met.

4. Such a classification should also react beneficially on hospitals themselves and on the medical schools which are associated with them. It is generally recognized that the success of a hospital depends almost if not quite as much on its nursing service as on its medical service—and since the nursing service of most hospitals is supplied in a large part by student nurses, it follows that these students must be well selected, well taught and well supervised, if the nursing service is to be a good one. What is not so clearly understood, however, is that a hospital may be well organized and well equipped in other respects, may have a good medical staff, and yet may be a poor place in which to train nurses. Even with the best resources, many a grade A hospital operates a grade B or C nursing school. This may be for lack of enough clinical material, or the overbalancing of one type of work, such as surgery, or the sacrifice of nursing teaching and supervision to supply equipment and maintenance for other departments.

The standards of a hospital—the primary purpose of which is to care for the sick within its walls—and the standards of a school—the primary purpose of which is to teach students to care for the sick not only in the hospital, but wherever the sick may be found, and under whatever conditions they may be found—are *not* the same.

and it is highly important this matter should be set right by a separate classification of nursing schools based on educational standards. Otherwise the grading of hospitals, which has been so helpful in other ways, may continue to mislead uninformed people, who accept a grade A hospital as a guarantee of a grade A school of nursing.

A further differentiation must be made between the hospital standards required for medical education and those required for nursing education. Although rich and varied clinical material and good clinical instruction are essential for both, other elements vary so much that a list of hospitals approved by medical authorities for medical education would be of somewhat limited value in the grading of nursing schools. The question of working and study hours, entrance standards, teaching equipment, hours of theoretical instruction, standards of class instruction, type of residence, quality of food, maintenance of health, etc., are all essential in evaluating the training of a nurse—yet the worst conditions may sometimes be found in hospitals where medical students are getting fairly satisfactory experience. Medical students are also profoundly influenced by the standards of nursing which they meet in their hospital work, just as nurses are influenced by the standards of medical practice—so it is essential for medical education as well as for nursing education that both should be kept on the highest possible plane.

Some progress has been made.

Because of the relationship between these three institutions—the hospital, the nursing school and the medical school—and because of the work which has already been done in the classification of hospitals, there seems no reason to question that it would be more efficient and more satisfactory to have this new piece of work carried out under the general auspices of the Carnegie Corporation, which has given such generous assistance in the grading of medical schools and hospitals.

At the national meetings held in Atlanta in 1920 a questionnaire was distributed and the nurses present were asked to take the questionnaires back to their respective schools and local associations and after a full and free discussion fill out the answers and return them to the sub-committee.

This was an attempt to stimulate interest, to emphasize the wide range of subject matter to be classified, and to collect information from the women who were struggling with the problems of nursing education and who represented the different types of schools we find in our midst. It was also an attempt to secure cooperation from as large a number as possible in order that the information assembled should represent the ideals of the league members, and not of a small group.

This questionnaire was successful to the extent that it stimulated interest and furnished material for much discussion; but the data secured showed great diversity of opinion and suggested the probability that the answers had been determined by the conditions which controlled the standards of various schools, rather than any clearly conceived idea of standards which might be applied to any school.

Following this, attempts were made to secure the indorsement of the medical and hospital organizations, and we are grateful for the degree of encouragement and promises of cooperation with which we have been favored. At present a small committee is busy trying to work out an acceptable plan, prepare a budget, and secure the funds to finance the work. After the funds are secured it is proposed to ask different organizations to send representatives to discuss the whole problem, and appoint a grading committee to pass on the facts collected by studying the various schools.

Any plan of grading or classification operating on a national basis involves an expense which is entirely beyond the resources of our professional organizations. We are, therefore, hoping to receive financial assistance and expert advice from the Carnegie Corporation.

On behalf of my colleagues may I express our appreciation of the endorsement of the American Hospital Association, and bespeak your continued interest and support?

CHAIRMAN McMILLAN: The next subject which is to be discussed is "Group Nursing" and is one of very vital interest to those of us who are engaged in hospital work. Very few hospitals have experimented with this. St. Mary's Hospital at Rochester, Minnesota, has made an experiment and we are fortunate in having today with us a representative from St. Mary's Hospital, Sister M. Paul, who will tell of what they have been doing in group nursing in that institution.

HOSPITAL GROUP NURSING

By SISTER MARY PAUL, St. Mary's Hospital, Rochester, Minn.

During the World War our hospital, like many others, found its nursing staff considerably reduced in numbers. To meet the emergency our sister superintendent devised a system of group nursing, which has attracted some attention as a device for conserving nurses and, if need be, for economizing in the number of nurses on private duty in hospitals.

The main features of group nursing as devised by the Sister in 1918 were these: ten private patients located on the same floor, and usually on the same corridor, were taken as a unit; to this unit were assigned five nurses for the day and two for the night. They were under the direction of the floor supervisor, remained permanently with the unit, had twelve-hour duty with two hours off each day

(except on ether days) and an hour and a half for meals. They received six dollars a day and board. Private nurses at that time were on twenty-four hours' service and were paid five dollars a day and board.

In the group system, each day nurse had charge of two patients, only one of whom might be a newly operated or ether case. At tray time she served one of her patients and remained with him during the meal, if necessary; then she served the other, remaining with him likewise during mealtime, if necessary. Bathing, medications, and trays being largely day work, there was less to do at night and two night nurses carried on the work of five day nurses. However, if any patient required constant attention at night, an extra nurse was detailed for the purpose. Night nurses went on duty at seven o'clock.

Under the twenty-four hour system, the charge to a patient for a special nurse was five dollars a day plus her board at not less than \$1.75 a day; if he needed a nurse for the day and another for the night, he paid ten dollars a day plus board for two nurses. Under the group system he paid about five and one-half dollars a day and had the service of two nurses, one for the day, the other for the night. The hospital collected from the patients and paid the nurses and their board. The per diem charge to the patients was determined by lumping together the actual cost of nursing service in the unit and dividing it by the number of patients in the unit; for instance, the wages of seven nurses at six dollars a day, \$42, and their board at \$1.75 a day for each, gives a total of \$54.43 a day; this divided by 10 gives \$5.43, the cost per day for each patient. Our units were filled practically all the time.

The primary advantage of the system was the attainment of the end sought at that time—economy in the number of nurses. Seven nurses in the group system carried on the work of ten nurses under the twenty-four hour system. Incidental advantages led us to adopt the system permanently, though when the scarcity of nurses disappeared, we employed more nurses at night.

In our new surgical pavilion, eighteen rooms on each floor have been specially designed for group nursing. They are arranged in pairs, with a toilet and lavatory for each room and a bath between the two rooms. Two patients in adjoining rooms are cared for by one nurse for twelve hours and by another nurse for the remaining twelve hours of the twenty-four; that is, we employ two nurses for each two patients, one nurse for the day, the other for the night. Each nurse is on twelve-hour duty with two hours off if the condition of her patients permits, and one and one-half hours for meals. Each patient pays thirty-five dollars a week and the board of one nurse. The hospital collects from the patients and pays the nurses,

so there is no financial tangle. When one patient leaves before the other, the financial problem is solved by allowing the remaining patient an extra nurse at extra cost to himself, putting him on general care during the night, or by putting in another patient immediately.

This is the group system as we have it at present. It has all the merits of the original group system and remedies the deficiency of night nurses, on account of which the original system was adversely criticized by a certain class of patients influenced sometimes by a nurse unwilling to adapt herself to the requirements of the new system.

Why are our nurses willing to take care of two patients twelve hours for thirty-five dollars when they might get thirty-five dollars for taking care of one patient twelve hours? First, because of their sympathy with the effort to do away with twenty-four hour duty; second, because the superior nursing facilities at Saint Mary's Hospital make it comparatively easy to take care of two patients. Common complaints against the twenty-four hour system are the monotony of duty when a nurse has only one patient to take care of, and the irregularity of employment. Sometimes the twenty-four hour nurse remains on a case only a few days or even only one day. The fact is, there is rivalry among our nurses to get into group nursing. Doctors who view the economic side of the question from another angle are opposed to the high cost of nursing service. Sometimes they say to us: "You employ a graduate nurse for one patient. What would happen if every doctor devoted all his time to one patient?"

Group nursing has proved successful at Saint Mary's Hospital and we would not willingly return to the twenty-four hour system. Our nurses enjoy regular hours of work and of rest and are better able to keep fit. They are permanently placed and are not obliged to go off duty frequently. While on duty they are more fully occupied and are therefore alert, interested, and content. Their program is definite for months or for years, if they so desire. They can plan their recreational activities better and avail themselves of other advantages usually attendant on permanent and regular employment.

The patient under the group system has the service of two nurses for the cost of one. The possible boredom of the constant presence of a nurse in the room is eliminated, though the nurse is always within instant call; however, if for any reason she fails to answer instantly, she gives the patient grounds for complaint against the system.

The floor supervisor finds the group system an aid to thorough supervision and to the carrying on of routine with less friction.

Administrative officers prefer it because it affords better service to the patients, favors the health, well being and efficiency of the nurses, stabilizes the nursing staff, and contributes to the order, method and regularity of the hospital.

The successful operation of the system makes rigid demands on the administration, in fact, it is an acid test of hospital management. The right selection of nurses is absolutely essential. We employ our best nurses for this system and try to associate nurses who are not only congenial but also helpful to each other. Mutual good will and a united interest in their patients obviate friction and shirking that might arise when duties cannot be evenly divided between the day and the night. Sometimes, for instance, the night nurse can give morning care to one or both patients; at other times it may be necessary for her to leave it to the day nurse in order not to interrupt the patients' sleep. We allow our younger nurses some experience on private duty before assigning them to group nursing. We find that recent graduates with five or six months' practice as private nurses are easily trained for group nursing and are attracted by its advantages.

Those of us who have had any experience in reform work know that any change, however desirable, meets with opposition at first; adjustment to new situations demands effort. Therefore in introducing group nursing, some caution is advisable. Without the co-operation of the medical and the nursing staff, it cannot succeed. Doctors, nurses, and the public must be made conversant with the plan, purposes, and advantages of the system. If a doctor is thoroughly enlightened in regard to it, he is better able to gauge any criticism he hears of it and to determine the cause of dissatisfaction, should any arise. A few guiding lines for those who adopt it are:

1. Select the nurses wisely.
2. Explain the system to the patient on admission.
3. Take pains to show all interested that it is not a money-making scheme on the part of the hospital.

MISS A. B. McCLEERY: One point that is made is this: "If the patient were educated to this mode of nursing he would, without doubt, receive it just as efficiently, much more economically, and would be in less danger of becoming dependent physically during his period of illness." There are times when I feel sorry for the husband when we return his wife to him after we have taken care of her as we have in our hospitals. The second point that is made is, "That this type of nursing would appeal to the nurse herself, because she is engaged in caring for patients who are ill," and then a reference is also made to the scheme as has been carried out at Ann Arbor, Michigan. "Each ward had a set of rooms adjoining it. These rooms were always kept filled. When a patient went to opera-

tion she was automatically transferred into one of these rooms, and the more convalescent patients to the place in the ward. Her hospital expenses were raised for this special nursing given. One graduate nurse cared for three patients in the day time and one graduate nurse cared for six patients at night. The extra amount to the patient was small, but she had the care of a graduate nurse over the first three or four days of most acute sickness and then returned to the ward. The graduate nurses in Michigan were regular members of the staff. They received board, room and laundry and were paid a monthly rate. They work nine hours a day, one-half day off each week. They do night duty in turn, working a twelve hour night with one-half night off each week and one whole night off at the end of each month's service. They had two weeks' vacation with pay at the end of the first year and a month's vacation with pay at the end of the second year."

HEALTH OF THE STUDENT NURSE

By CAROLYN HEDGER, M. D., Chicago, Ill.

In general, a woman agrees with a training school to give service for a period, to give tuition, or both. The hospital or training school undertakes to give her at the same time her nursing education. This report that was mentioned by one of the speakers, and to which I shall refer more than once, shows that this education, both practical and technical, varies in tremendous limits over the United States, and, of course, standardization has to come.

Now, the unspoken agreement between these two people is that this woman is to be a nurse and she is to be of constantly increasing value to the hospital during her stay there. She is to be of value to the public afterward and she is to be of some use to herself.

The hospital on its side hopes to get its nursing done, and it hopes in addition to its other wide service to the community to be of use in the educational field. Here at once occurs a conflict which is amply and ably discussed in that book "Nursing Education in the United States," published by McMillan in 1923. But that conflict immediately arises: there are those sick people to be taken care of.

Another conflict arises which seems to me similar in some ways and more important, and that is the conflict between the needs of the hospital and the health of the nurse, and in this conflict I believe little has been done.

In this educational conflict who suffers? The nurse and the hospital and the community to a smaller degree. This conflict hits the hospital hardest and it hits it immediately and it hits it first, secondly the public, and the nurse suffers in this conflict.

The American Journal of Nursing, June 23, page 573, on the basis of forty nurses, reckons that the cost per pupil per year of

training a nurse is \$1,147. The same *Journal* of December 22, on the basis of fifty nurses—figured in quite a different way, however—gives an estimate per nurse per year of \$914.00 as the cost of training a nurse.

I visited a very small hospital that trains ten nurses a year—a graduating class of about three a year. Their cost accounting is very inefficient, but on their own figures they pay \$1,106 per nurse per year in the training of that little group of nurses.

I then got figures from a very large hospital, considerably over 200 nurses, and they admitted their cost accounting was very inadequate and gave me many leaks that they couldn't stop, they gave me no figure on advertising at all, and their cost per nurse per year is \$1,328.

These cost accountings are all faulty—various things are left out. Then I went to visit a medium sized school that graduates—well, it carries about 140 nurses a year, and they gave me their budget. This budget included no depreciation on plant, no breakage, no care of the sick and no recreation and their figures were the lowest of all, and I think absolutely inadequate; they think they can train one nurse a year for \$590.00. I don't believe it. I think the gaps there are so big that the leakage is too much to make that figure even reliable.

Now what is a nurse worth? This is what she *costs*—what is she *worth* to the hospital? I got an estimate of "zero" in the probation period from one of your publications. A probationer is worth more than zero; if she makes beds she at least takes the place of a maid—but if her education is purely theoretical of course her value to the hospital is zero. Then I got some estimates as high as 50c an hour, the value of the nurse to the hospital. We cannot talk health of nurses or conservation of nurses or discuss this problem until we know what the cost is to train a nurse, and we have got to ask of organizations like the American Hospital Association a systematized cost accounting in the training of nurses before we get any where.

What does it cost to replace the nurse in your hospital? What does it cost you to take care of your sick nurse? We have one study on that from Miss McMillan's own hospital—Dr. Dick, in the *Nation's Health* in May, 1922, counted time lost in that large training school covering 200 or more nurses in 1920. That was an influenza year and of course the influenza gives it an undue weight, but in that year that training school lost 1,651 days of labor on the part of the nurse, and they had in the hospital 560 days of sick nurses cared for. He estimates the care in the hospital of the sick nurse at \$5.00 a day. If any of you can take care of a sick person for \$5.00 a day I wou'd like to get your address in case I should fall

ill; but as a matter of fact, even at that inadequate price that bill for hospitalization was \$2,800.00, and Dr. Dick counts not at all the cost of replacing that nurse in the ward.

The largest training school that I visited reports in one year 1,378 days of illness and 3,607 dispensary visits, exclusive of vaccination; two nurses employed at a salary of \$190 a month to take care of the sick, and no cost given for replacement.

The 140 nurse school, the middle size school, carries seven nurses all the time to make up for the sick, and the day I was there she had five down and five of her seven extras on duty. But they gave me no cost on the care of the nurse.

That is a fearful situation, just from the money point of view, and I know as well as any of you the fearful burden of the money side of the hospital. This has got to be considered, but it has got to be considered from a careful cost accounting side, from an evaluation in the future of what the nurse's cost is, what her replacement cost is and what she is worth. I cannot give you those figures this morning and I have simply given you these huge figures to make you study your own.

Another closely allied cost on the health side, (but only partially health) is the labor overturn in the training schools. This middle class training school gave me their labor overturn rate for eleven or twelve years. Some years it ran as high as 70 per cent, and for those eleven years it averaged 50 per cent.

I know very well that health is not the only cause of labor overturn in nurses. There is matrimony and family difficulties and many things, but you know, as hospital people, that health, physical disability, flat feet and other things have a tremendous influence on your loss of your nurses. What does that cost?

The industries are awake. The best figured cost of hiring and firing a man that I ever saw was figured by the Commonwealth Steel Company of Illinois, and in that company it cost them \$85.00 to hire and fire a man. What does it cost you people to lose your material that you have gathered in? And what are the elements of cost in the loss of that material?

First, your hiring cost. My little school of ten nurses pays \$500 a year in advertising to get those ten nurses. The 140 nurse school pays \$1,704 a year to maintain its 140 nurses. Then there is all the cost of correspondence, getting statements from their character vouchers and all these things that always come under hiring.

These are all costs, and they hit the efficiency of the hospital. How can we eliminate those costs? We can eliminate those costs by carefully getting the kind of material we want.

In working with some undergraduate nurses for the last two or three years, I have focused on three or four points as the most

important things in this health problem of the undergraduate nurse. First, is a nutritional supervision of the nurse. You go into any nurses' training school and weigh and measure those nurses. You will find a certain per cent grossly over weight. In the group I work with this was about 25 per cent. Their feet were not holding them up as well as they should, and they had that typical flat foot gait from carrying so many pounds.

Another percentage—and I am sorry to say somewhat larger—in one of my groups it ran close to 42 per cent—are at the other end of the nutritional scale. They are so skinny as to be unlovely and dangerous. Now, that nutritional problem is a real one, because your skinny nurse has a lowered resistance to certain infections that she must meet, and your fat nurse has a certain lack of activity and adaptability and wide-awakeness that is very necessary in the profession. And we are paying very little attention to it. It seems to me that the first requirement of training schools for nurses is a nutritional supervision.

There is a third class that I am rather shocked to find in the training schools that I work in. I worked in the same 140 nurse training school last year, and, almost apologetically, I gave to those undergraduate nurses Dr. Sippey's wonderful diet against constipation, and I was almost afraid to do it, it seemed an insult to give to those women in their second and third year so fundamental a thing as an anti-constipation diet, and I was assured by the superintendent that she was worried to death about the constipation in her training school. Now that simple course diet could be provided and the constipated girls in the training school could be adequately fed, right in that dining room, without any extra cost. But it would take some adjustment of the nutritional status of the nurse fitting that standardized and possibly theoretically adequate diet to the nutritional problem of the individual.

You cannot stand these days of sickness, this loss of nurses in training, and all of this inefficiency that goes with these nutritional defects. You can arrange for a nutritional supervision of the nurses that will bring them through better able to take care of your patients, and more effective when they get out.

The next problem besides nutrition that moves me is the problem of night duty. I believe that there should be a nutritional standard for night duty.

In trying to build up a group of young nurses year before last, I had a large percentage of skinnies, and by means of advice and urging I was getting some results. I would get perhaps three or four pounds on these emaciated people and when I got a nurse up three or four pounds and began to hope for some nutritional balance,

she was snatched out of my hands and put on night duty and she would lose perhaps six or seven pounds.

That is a waste of human material. Any of you who have been through the profession know the strain and the drain and the exhaustion of night duty.

A third point that has been forced upon me is conservation of the reproductive function of the nurse. As a matter of fact, we are much in need in this country of trained mothers and of mothers who are competent to give us a future commensurate with our ideals, and of these no group should be a more participating group than the nurse. Now I have long held that the nursing training school had no right to exhaust the nurse to the point where her reproductive function was imperiled in the future.

Fourth, the conservation of the nurse's nervous balance. And on that we have done very little, I fear. Edna Foley gave me some ideas on that subject recently, and quoted a case that had come into her office just the day before I saw her. A nurse in her senior year had been appointed night superintendent over four floors of a small hospital. On the top floor of that hospital was a patient with a special nurse, and the husband was there at night. The superintendent in pursuit of her duties was on some other floor. The nurse stepped out to get something for the patient, the husband took that time to step into the hall, and the patient went out the window. Now, technically, that superintendent was not responsible, no superintendent can be on four floors at once. Actually, such was her high professional feeling that that girl was absolutely wrecked. Edna Foley said she doubted if that girl ever got her nerve together again to do nursing.

CHAIRMAN McMILLAN: There are one or two matters of business which have to be attended to. It is customary each year at this conference of the Nursing Section, to elect the Chairman and the Secretary for the following year, and we wish to do so now. We will be glad to have suggestions of the names of one or more persons whom you wish to serve you as Chairman for 1924.

Miss Eldredge nominated Miss Flaws of Toronto, Canada, to serve as chairman. Seconded.

CHAIRMAN McMILLAN: It has become the custom of this conference to elect as chairman a superintendent of nurses—rather than a hospital superintendent, and for that reason Miss Flaws is not eligible.

MISS ELDREDGE: I suggest that the nomination be withdrawn.

MISS HENDERSON: I move that Miss Jean Gunn of the Toronto General Hospital, Superintendent of Nurses, be elected chairman of the Section for 1924. Seconded.

Motion is carried unanimously.

Now we have to elect a secretary.

MISS McCLEERY: I move that Miss Shirley Titus, Columbia Hospital, Milwaukee, be elected secretary for the ensuing year. Seconded.

CHAIRMAN McMILLAN: Miss Titus of Milwaukee is also a superintendent of nurses.

Motion is carried.

There is one other matter that we want to present. The government is trying to re-classify nurses in government service, and in the re-classification, as I understand it, they are placing nurses in the same group as orderlies and other such workers. The nursing profession naturally disapproves of this, and has sent a request to the American Hospital Association to adopt a resolution of protest. The Committee on Resolutions of the Association has responded to the request and has prepared suitable resolutions which will be presented and acted upon by the members of the American Hospital Association before adjournment. The session is now adjourned to meet again in 1924 as the Nursing Section of the American Hospital Association.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin,
November 1, 1923, 9:30 A. M., Dr. T. K. Gruber
in the Chair.

ADMINISTRATIVE SECTION

(Public Health and Community Relations Section)

REPORT OF THE COMMITTEE ON RELATIONS BETWEEN HOSPITALS,
STATES AND CITIES

(For text of Report see Opening General Session,
Monday Afternoon, Oct. 29th)

MR. JOHN E. RANSOM, Chairman: The chairman of this committee is not going to take very much of your time in discussing this report. Those who are particularly interested in it have probably read it already. Just a word about how this committee came into existence. The inquiry as to whether there was legislation in the states and ordinances in the cities directly affecting hospitals, was started two or three years ago, but since the subject is one which was of rather vital interest to hospital people, the Association decided that it was well to make this study a little more complete and present it to the Association in the form of a report. What the committee did was to inquire from all the State Boards of Health and from the departments of health in cities of 50,000 or more, as to whether or not there were any laws or rules and regulations which had the effect of laws in the states, or ordinances in the cities, directly affecting the conduct of hospitals. This report shows that we have received a very negative answer to those questions. There is very little specific legislation anywhere in this country, in either the states or cities, that is aimed at the regulation of hospitals.

What does exist is a certain legislation and rulings of these bodies which apply to hospitals along with other organizations and other individuals, that is, the hospitals of a city must comply with the building laws of the city. The laws and ordinances and rules and regulations applying to the control of contagious diseases, quarantine, etc., apply to hospitals—the ordinary provisions for the safety of people, such as fire ordinances, etc., also apply to hospitals. Only a few of the cities have any specific laws or ordinances calling for inspection, reporting or anything else on the part of the hospitals. The most frequently found legislation was that relating to lying-in hospitals. The list of states in which there are laws governing such hospitals is published in this report. A few cities—Chicago in particular—has rather lengthy ordinances regulating both hospitals and dispensaries. A digest of the principal features of those two ordinances is given in this report.

There are however a few things which any hospital wanting to know what is being done in other states in relation to these things, might well acquaint itself with. For instance, the nursing laws in all the states have some effect on hospitals. Recently there has been compiled a digest of all the laws affecting hospitals, particularly featuring nursing laws. In those states where the intern year is required for license to practice medicine, there is beginning to be a regulation of hospitals by the State Boards, affecting intern training.

MR. J. J. WEBER: If our states and municipalities bear any relationship to the private hospitals scattered about this country, it is largely by virtue of the fact that these relationships have been established by specific acts of legislatures or by specific acts of City Councils or kindred bodies. In the main, I believe it is true that governmental agencies cannot, in and of themselves, assume these relationships. Speaking academically, I presume it may be said that the relationships which State Boards of Health, City Boards of Health and kindred bodies sustain to our private hospitals, vary from what is practically no relationship, through a condition of partial relationship, clear to the other extreme where the relationship is fairly close and complete. It is evident from the report that the relationships which exist in the various states and cities run the entire gamut, and this is due probably to the fact that the different states and the different cities vary in the interest which they have taken in private hospitals. Some of our states are thoroughly wide-awake to the existence of our private hospitals and what they mean to the communities in which they exist, and in these states you will find that a number of relationships have been established between the State Departments of Health, the City Departments of Health and our private hospitals. In the case of states which have not yet turned their thoughts in this direction, the relationships are few and by no means close. The condition which is pictured in the report points to the desirability of determining far more fully than we have thus far determined, just what the relationships at present are, and further than that, just what they should be, both in the interest of the individual private hospitals and in the interest of the common welfare.

Shall the relationships be limited merely to the establishment of certain building codes bearing directly on the location and construction of our private hospitals, or shall they go further and relate themselves to the internal organization and management of our private institutions? Shall they stop at the mere registration of private hospitals by some State body, such as the State Department of Health, or shall they go further and establish certain relationships under which State Departments of Health and other State departments shall license and inspect hospitals? In a word, what

are the desirable relationships which should exist between State and City Departments of Health and our private hospitals? Another question; if certain relationships are desirable, between what bodies shall they be established? We know that in some states there are relationships between the State Departments of Health and private hospitals. In other states they have been established between the State Board of Charities and the private hospitals. In still other states, a relationship has been established with bodies of larger scope, such as State Departments of Public Welfare.

Assuming that certain relationships are desirable, should they be made more or less uniform among the various states? This report shows that the relationships which exist at present are far from uniform. It would seem to me that here, at least, is a field where more or less uniformity is desirable. Who shall establish these relationships? Hitherto, in large measure, they have been established through the initiative of the regulating and licensing bodies, and the hospitals themselves have had very little to say about the question. Is that a wholesome and desirable situation? Should the private hospitals themselves have all to say about the relationship, or would it be desirable for the regulating, licensing and inspecting bodies to co-operate with the private hospitals who are to be regulated, inspected and supervised, in determining exactly the scope and character of these regulations? Now, if it is true that certain relationships are desirable, and that, being desirable, it would be a good plan to have them more or less uniform throughout the states, does it not naturally follow that the American Hospital Association ought to be active along this particular line? For it is only through some such national body as this that uniform, desirable relationships can be established. The report of this committee reveals some of them, but the committee has not gone very far; it admits that it has not gone very far. I ask therefore whether it is not desirable for the American Hospital Association to continue this or some kindred committee who will study this subject further in order to determine in a very thoroughgoing fashion exactly what the relationships now are, how they should be modified and how they should be added to in order to secure the most desirable results. And having determined what they should be, let the Association continue actively to make them actualities.

MR. MATTHEW O. FOLEY: I believe that this section will be interested in the result of some investigations which our organization has been carrying on for several years with reference to the relation of states, particularly, to hospitals. As a result of this investigation, we have discovered that every state in the Union, and the District of Columbia as well, has certain laws affecting hospitals. These laws are administered through a number of State bureaus,

including the workmen's compensation board, the board of nursing examiners, the board of health, and similar organizations, such as the Department of Public Welfare. The workmen's compensation board or the industrial commission in the different states affects the hospitals through its power to regulate the amount of money a hospital may collect for payment for industrial cases. In only two states have anything like ideal conditions in regard to payment for this service been obtainable. Connecticut, several years ago, through the efforts of the State Hospital Association, had a law passed which provided that actual cost for such cases should be paid to all hospitals handling workmen's compensation cases. Ohio has a similar law. These two states, incidentally, should serve as a model for practically all the others, because while the industrial commission rules that "reasonable" cost for hospital service should be paid, it limits the cost in some cases to as low as \$50, including nursing, medicines, physicians' fees, and it also specifies the time in which the service should be given, naming from ten days to fifty days or ninety days. So it is easy to see that where a law compels an industrial commission to pay actual cost as long as the service is rendered, that that law is a whole lot better than a law which says "reasonable" costs should be paid, but that these costs should not exceed \$50 and the service should be rendered for not more than 90 days.

I believe some mention has been made of the building code. This code in Ohio, as the hospitals of Ohio know, is quite a detailed regulation, containing something like 26 pages of restrictions as to how a hospital should be built and how the different rooms and departments of the institution should be arranged. A majority of the states have a relation with the hospitals through their maternity departments. In some states a maternity hospital has to obtain a license, and this license means that the hospital is subject to inspection by the State Department of Health or some other organization, and the local health department, police, etc. In Pennsylvania, through the Department of Public Welfare, even closer relations exist between the hospitals and the State. These include a system of financial records for hospitals, including regulations regarding the determination of what constitutes a pay patient and a free patient. Dispensaries also are closely supervised in a number of states, and among the dispensaries which have detailed regulations or restrictions, are those treating venereal disease patients. As an example of how far some states go in restricting or supervising hospitals, I might mention the case of one state whose maternity hospitals have to stamp their license number and the date of discharge on every garment of every infant born in the institution or cared for in the institution. A good many states, by law, fix the amount of pay for charity cases received by a private hospital. In some cases this amount is as low as \$7 a week.

The State laws also fix the method of payment and restrict gifts of cities or counties to private hospitals. All of you are familiar with the development of nursing. Nursing boards have a very thorough set of regulations for hospitals. These regulations determine, or at least prescribe, the number of beds and the character of service a hospital must give in order to have an accredited school, and also determine the living conditions in the nurses' home, the situation with regard to ventilation, plumbing, etc. There is one state which goes so far as to prescribe the number of cubic feet of air space and the square feet of floor space each hospital must have for each patient. All the states except two or three have very detailed regulations regarding the care of tubercular patients, and these regulations of course affect hospital care.

MR. CLARENCE E. FORD: In going over this report I am inclined to think that possibly the relations between the hospitals and the states are not quite so meagre as the statement presented seems to indicate. In the eastern states regulation of hospitals is generally by the State Board of Charities and not the Department of Health; therefore in requesting information only from the State Departments of Health, the committee did not, I fear, secure complete data. For instance, in New York State a hospital, to secure incorporation, must have the approval of the State Board of Charities; in other words, that board maintains a check on the establishment of hospitals. Not only does it approve their incorporation, but it has supervision of those that receive public money, and in addition, under certain circumstances, may apply to the court to annul an incorporation; in short, it follows them, so to speak, from the cradle to the grave. I am therefore of the opinion that the report is incomplete and that this body is not justified in drawing the conclusion that there is little relationship between the State governments and the hospitals.

MR. GEORGE A. COLLINS: I am quite in accord with what Mr. Weber had to say as to this committee being continued. Either fortunately or unfortunately, I am manager of the Department of Health and Charities of the City of Denver, as well as being superintendent of the county hospital. There has been some agitation in Denver at different times, especially since the zoning ordinances are being drawn, as to what might be zoned in or close to a hospital, or a hospital being zoned out of certain districts. Then again there is another proposition which has been agitated there at different times, and that is the question of taxation of hospitals. Most of the hospitals in our communities do a great deal of charity work. But some of them do absolutely none; they will take a patient into the institution, especially a tubercular patient, they will take his money as long as he has any, and immediately his money is gone they want to turn him out into the street or make him a county charge. Due to that, I

should say, this agitation has arisen that hospitals must, each six months, register with the county clerk, the amount of charity that is done by the institution. At the end of their fiscal year, should the amount of charity not equal the amount of taxes that would be charged against the property, they will be assessed for their taxes. Now this, should it ever be started, means quite a little to hospitals in general. I think this Association should continue this committee and ask for further reports as to the relationship between the State and the city. With us the State Board of Health grants a permit for a hospital. That includes the City and County of Denver. The City and County of Denver work under a special charter. They grant for us this permit, that is, the State Board of Health; then our City Council and Board of Health must approve it, so there's a conflict of authority continually. We have just recently had a very bitter fight over private institutions being licensed in the city by State authority. I think it will be for this committee to dig in and get all the information they can, because this Association is going to be vitally interested in it as time goes on.

CHAIRMAN GRUBER: Is there any further discussion? Dr. Conley said last evening after the session, that a good chairman and a good toastmaster had nothing to say, but I am neither a good chairman nor a good toastmaster, so I'm going to try and say a few words on the question. The proposition seems to me that State and city regulation of hospitals has come about, not particularly because the State or city was interested in regulating anything except something that was vital to the State or city, but I am afraid that a great many of the hospitals have not conducted themselves as many of the better hospitals, and so it has been necessary for states and cities to make regulations governing them. Some concerted action on the part of the American Hospital Association to bring hospitals up to a standard where they belong, bring all hospitals up to a standard, is going to not only give proper regulation but eliminate a lot of the regulation we have. It is my observation that civic and semi-public affairs are never regulated unless there is some reason for it. Now there has been some reason for the regulations that have come about. Some of the reasons have been selfish ones, as certain groups of people are interested in municipal affairs and have got regulations before State boards to regulate that particular branch of the profession, more from a selfish motive than anything else. But so far as a great many of the regulations are concerned—regulating hospitals in the matter of fire protection, and protection against the ill trained practitioner, and that sort of thing—they have come about because the public realized that they had to do it to protect themselves. It is up to the American Hospital Association to bring about such a change in hospitalization in this country that a great many of these regula-

tions will not be necessary. I will entertain a motion to dispose of this report.

It was moved and carried that the report be accepted and referred to the Trustees for further action.

REPORT OF THE COMMITTEE ON INTERN SERVICE.

(For the text of the Report see the General Session Tuesday morning, October 30th.)

DR. N. W. FAXON, Chairman: Owing to the fact that this report is not really a report but a statement of conditions, and was read and not printed, I will just take time to call your attention to some of the features that we hope will be discussed and brought out in this meeting. The committee was appointed rather late, so late in the year that it was impossible for us to study the conditions sufficiently to really make a report. As you can all realize, it is impossible for us to travel around the country and get the ideas of the various hospital superintendents in all parts of the country and see how any regulations or conditions relating to the intern question might affect them. That is one reason why I hope to see a frank expression of opinion made right here as to what the needs of the regulation of interns are in the various sections, so that the committee may get some idea of how this situation affects you. The first thing that the committee found in going over the situation was the number of organizations interested in this. I read the list the other day. They all have a little different slant at it; some of them are interested in it solely from the educational standpoint; some are interested in it in supplying medical students to the hospitals as interns, and some have mixed reasons for being interested. The matter boils down to this general agreement, I think, by everybody—that intern service is a mighty good thing for everybody concerned—but agreement must be reached on these other points.

First, what is a satisfactory intern service both from the point of education to the intern and the length of time that he should serve, and whether he should be always in one service or whether he should have different services; the rotating versus the non-rotating service. Of course, theoretically we would answer right off that the rotating service was the right one; a man goes into medicine, goes to surgery, he has maternity work, he has laboratory work, and when he is through, he is generally fitted for utilizing his training. On the other hand, the staffs in the various hospitals will say, "That is all very fine, but a man who only spends three months on medicine or surgery is not worth anything, he has just got a little dangerous knowledge." I am giving the different arguments, not taking any sides in the matter at present. So you see as usual there are two sides to the question.

Most intern services are one year. On the other hand, some people think they ought to be increased and be made two or even three years so that a man may get a real training. The opposite side of that is that men cannot afford to spend more than one year.

The control of the intern—shall it be left in the way it is? In the majority of cases now, it is really in the hands of the hospitals. They try to make arrangements with various medical colleges or with individual students that they know about, to come to them as interns. Shall it be left that way, or shall it be controlled by the licensing boards of the states, as it is in eleven of the states, or shall it be controlled by the medical schools as it is controlled by eleven of them, by making it an integral part of their curriculum; that is, they will not grant the M. D. degree until after the man has passed an intern year. This is a point that we have got to find out just how it is going to affect the hospitals.

In regard to the supply—the best figures that we can get seem to indicate that there is an insufficient number of medical students to supply the required number of interns. I will just call your attention to some of these suggestions for remedying this lack of interns; first, an increase in the length of service from one to two years, not necessarily in all of the hospitals but in the larger hospitals where they might be able to carry on the training of the first year and make it worth while for interns to stay a second or even a third year. That of course would allow interns to be used in a greater number of hospitals. Second, the forming of a resident service; that is, carrying on the original intern year still further. Third, the use of fourth year students; that was done during the war time and should give us some idea of how successful it would be. Fourth, using men who are already in practice, who are seeking a sort of postgraduate work, feeling that they might be utilized to do at least certain parts of the intern work in some hospitals, and perhaps be able to do it all in others; in the smaller hospitals, for instance. Fifth, the use of non-medical aids. The committee hopes that whatever it does next year, it will not be put in the class Mr. Foley spoke of in reference to Ohio as having 270 pages of restrictions; we hope it will be helpful and will fit in with the various needs of the hospital. I wish to have a frank expression of opinion on the subject.

DR. WALTER H. CONLEY: I regret that Dr. Faxon's report was not printed so that I could digest it further, but I made a few notes and compiled a few figures in relation to the subject. I have been quite interested in this for three or four years, particularly on account of conditions in the hospitals of New York City. At the present time we are having trouble with the Civil Service Commission in relation to our interns and our resident physicians. During the war we got the Civil Service Commission to agree to an amendment of

the State Practice Act, which allowed the hospitals to pay interns or resident physicians who were not licensed in the State of New York. That has come up again, and the question has been raised and some of the members of the County Medical Society have threatened to introduce a bill into the Legislature going back to the old Act, whereby we could not pay interns or could not pay residents who were not licensed to practice in the State of New York. Interns practice in the hospitals under the direction of medical superintendents and the attending doctors, but the minute they are paid, according to the old Act, they come under the Licensure Board of the State of New York.

In relation to the rotating and other service: The eleven medical departments of the universities that require a fifth year, an intern year, when they ask you what service you give to the intern and you tell them you will give them a varied service of medicine, surgery, maternity, laboratory and some others, they say "That is exactly what we want." Most of the ten States that require the fifth year do the same thing. Pennsylvania makes you certify and swear to the fact that each intern has had a rotating service of two months each in certain subjects, and if you do not give them that, they drop you out and say they will send no more interns to your hospital. A number of the New York City hospitals are recognized by the universities and States that require the fifth year, or intern year, and as a result of that we have to have a rotating service. We give them a rotating service for twelve months, and then we select the better of the men and ask them to stay another year. Those men we make house men. In some of the institutions we are paying these men a small salary, about \$40.00 a month. Some of these men who are especially good at the end of that year are appointed as resident physicians and remain in the hospital for a longer period. For that reason I believe that the rotating service is better. Possibly some of the teaching hospitals that are connected directly with the colleges could have a longer service, maybe six months on medicine, six on surgery and the same on maternity and laboratory, etc., making a two year service.

I find that the length of service of interns varies from six months to thirty months. In the analysis made by the American Medical Association, they show that the majority of internships are twelve months long, but they do vary from six to thirty months.

In relation to old graduates or men who have been out in practice for a number of years and desire to brush up—we have given some of these a temporary position on the intern staff for two or four months and put them on the service that they desired, surgery or medicine, under the direction of the house men. Most of them have given satisfactory service. They are anxious to learn and they are anxious to become up to date in medicine and surgery, and as a result they are really of more use to the hospital in some ways than the

ordinary intern. Student interns from the hospitals connected with the medical colleges get clinical work and laboratory work, and they act as clinical assistants and laboratory assistants. During the war we tried them in all the hospitals. At the present time we are using them during the summer vacation between the terms of the medical colleges and do get some service out of them. Many of them think that such service does them a lot of good, and I do not think there is any question but what it does.

In the paper of Dr. Faxon, he does not bring out the facts to show us exactly what has happened in the medical colleges as to the number of graduates. In looking over the American Medical Association report, I find that in 1904 there were 162 medical colleges in the United States, of which 158 were not up to the present standard, leaving only four that were up to the present standard. At that time they had 28,142 students and graduated 5,747 men and women. In 1921 there were 83 colleges, seven of which were not up to the standard, and they had 14,872 students (practically only half the students they had in 1904), and there were 3,192 graduates. In 1923 there were 80 colleges, six of which were below the standard, and they have approximately 18,000 students. That is more students than they have had in any year since 1911, showing there is an increase in the number of students attending the medical colleges. In graduates, the lowest year was 1919, 2,000 graduates; in 1923 approximately 3,000 graduated, and it is estimated that in 1924 there will be 3,825; 4,500 graduates are estimated on the registration for 1922 and 1923, but I know it to be a fact that some of the colleges have decreased the number of freshmen admitted this year. I know that the medical department of New York University—Bellevue Medical College—last year took in 150 freshmen and this year has only taken in 110 freshmen, so the estimates of the American Medical Association may be a little bit large.

Another interesting thing in relation to the interns and resident physicians, and showing the number of physicians who are attached to the resident's staff of the different hospitals: In Federal hospitals there are 46 interns and 652 resident physicians; in State hospitals, 306 interns and 985 resident physicians; in other hospitals, including community hospitals, city and county hospitals, church hospitals, etc., there are 3,669 interns and 2,275 resident physicians, making a total of 4,021 interns and a total of 3,912 resident physicians. Now, in relation to the analysis of the shortage of interns as made by the American Medical Association: They selected 660 hospitals as approved hospitals for internship. Of these 660 hospitals, 510 were general hospitals, 30 were nervous and mental hospitals, 120 were special hospitals, and out of the 510 general hospitals practically two-thirds of them were hospitals with over 100 beds; the balance were

between 50 and 100 beds. They show that the 660 approved hospitals desired 3,690 interns, and that they have 3,413, a shortage of 277, or $7\frac{1}{2}\%$. Of the non-approved hospitals analyzed, there were 280, most of these smaller hospitals. They desired 966 interns and they had 608 interns, showing a shortage of 358, or 37% . I think these figures show that there is a shortage of interns and the shortage is particularly in the small hospital. It is the small hospital that is going to suffer for interns, because they are not approved by the American Medical Association as proper hospitals for internship; they are not approved by the eleven medical departments of the universities that require a fifth year; they are not approved by the ten States that require a fifth year. The smaller hospitals will therefore have great trouble in obtaining interns; but I think their salvation will be in looking for men who have had an internship in an approved hospital. Pay him a salary and get him for another year. I think that will be the only solution we can find, because it is going to be a great many years before there will be a sufficient number of medical graduates to fill the approved hospitals and fill the smaller hospitals that need interns.

DR. D. M. MORRILL: As I conceive the purpose of the report of this committee, it is primarily to fix upon a basic program, or rather to draw discussion toward a basic program which will ultimately bring about some agreement between the three principal bodies concerned with the training of interns. The hospital, as Dr. Faxon showed, was the first of these organizations, by a number of years, to realize the value of interns. Now the American Association of Medical Colleges and the Association of State Examining Boards come very definitely into the field. There is no question in anyone's mind, I believe, that intern service is necessary in the training of medical men for practice. The State Boards and the medical colleges, by their recent actions, have demonstrated their acceptance of this requirement. I will try and discuss somewhat the problems which Dr. Faxon has stated, which seem to me to cover the puzzles in everyone's mind quite completely.

In regard to the length of service, which has been stated as from six to thirty months, one factor which must be remembered is that the supply of material is an annual production; medical colleges graduate their classes annually, and any uniform program must keep this fact in mind. Certainly for general training in medicine, surgery, maternity and the laboratory, less than a year is insufficient; certainly more than a year can be employed with profit. On the other hand, this discussion should center toward a basic program which may be amplified by as many years as necessary. It would seem to me that for that basic program one year of service would represent the best minimum. In regard to the form of service—after discuss-

ing this question with members of the State Board and having heard the discussions of the American Association of Medical Colleges in June of this year, I believe there is rather general agreement that whether the requirement be made for graduation or whether it be made by the State Board, a general training is essential. This basic program must include, therefore, but very limited time, if in fact any time at all, in the specialties.

The problem of the control of the intern year is perhaps the most vexing question of all. Originally hospitals appreciated the value of, and instituted, intern services; later medical colleges began to require the intern year and finally, State Examining Boards made this requirement. Each of these three organizations have instituted regulations within their own spheres, and stated principles controlling to a degree the service of the intern. This haphazard control by three organizations is going to continue to develop methods at variance from one State to another, from one medical college to another from one hospital to another, resulting in a maze of methods, unless the American Hospital Association centralizes the opinion of these three groups and undertakes to develop a uniform practice. Certainly the hospitals will be unwilling to relinquish direction of the intern while he is giving service to their patients. The licensing boards, it seems to me—with the exception of the Board in Pennsylvania, where they have been very specific—will be very willing to have the hospitals and the medical colleges point the way for them. I think they are standing on the ground that the public are entitled to and are demanding the services of practitioners of medicine, not of men trained in a multiplicity of specialties whereby the patient has to go to three or four or sometimes eight or ten men, paying as many fees, before he is able to obtain the service he is seeking. I believe thoroughly that these licensing boards will be glad to accept reasonable principles and suggestions in regard to the control of the intern year.

Another factor which has caused some confusion and would cause very much more confusion as this requirement becomes more general, is the matter of variation in time of examinations for interns and variation in methods of appointment. If the American Hospital Association, the licensing boards and the Association of Medical Colleges could agree on some program whereby examinations may be given at a definite time in the year and whereby the senior students in the medical colleges may have an opportunity to take those examinations, the time being set early enough to allow for placement of those men who do not succeed in obtaining the appointment that they most desire, some order might be brought about in this fashion. In regard to the shortage, I believe, as Dr. Conley states, that the majority of this shortage is felt in small hospitals and obviously from

the consideration that both the examining boards and the medical colleges do not approve hospitals under 75 beds for the training of interns toward either the point of graduation or licensure, these smaller hospitals must look to some other means of providing the equivalent at least of intern service, other than by men newly graduated from the medical schools. I was interested in Dr. Conley's suggestion that the men who have served a year of general internship might be obtained by these hospitals by paying them a salary for their second year. This will be a possibility perhaps with the fortunate small hospital, but it seems to me that some difficulty might be met due to the fact that the smaller hospital, which is apt to be least able to pay, becomes the hospital which most probably has to pay. The majority of larger hospitals are able to get men who anticipate that their principal remuneration will be in the training that they receive. I believe that an amplification of the method now actually in vogue in many instances of training non-medical aids, persons of ability, perhaps of professional training, as nurses or laboratory workers, to do the ordinary laboratory procedures expected of the intern and to give anesthetics and things of that type, offers greater hope for the small hospital than does the graduate who has served a year of intern service and who would have to be paid a sum which would be difficult for the small hospital to meet. In regard to the shortage of interns, again I feel that relatively little can be done to immediately meet this situation; I feel that it is part of the general law of supply and demand. There is a gradual increase in the number of medical graduates but this cannot be hastened to any degree, and until the supply is increased at the source, it seems to me that you cannot hope to remedy this shortage by supplying graduates in medicine. Dr. Faxon's report suggests the possibility that resident services may be formed with promotion of selected interns. Here, again, I do not see that this will materially change the supply, because I believe the majority of hospitals that are able to absorb such a promotion system, where they would be able to keep such personnel busy, already have such a system in vogue. I do not believe that we would obtain much numerical increase in this fashion. Many of the larger hospitals, practically all hospitals in fact, had some experience during the war in the utilization of undergraduates as interns. They do, indeed, give some service, but as a matter of permanent policy, I think everyone found that the division of labor required of the individual through his application to his senior work and his attention to patients in the hospital was altogether unsatisfactory. If the medical colleges should see fit to shorten their curricula to a period of three years, then make the fourth year entirely intern work, that would be another matter; but so long as scholastic work is given during the fourth year, I believe that fourth year men will always be more or

less undependable as interns. I was interested to hear from Dr. Conley that they were utilizing postgraduates as interns. I should like to ask the doctor whether or not you included in your intern program a number of vacancies for postgraduates, or whether their services were utilized as extra services, thereby relieving any slight excess of pressure on the house staff?

DR. CONLEY: They were used as extra service.

DR. MORRILL: That would seem very profitable. On the other hand, to depend upon any type of continuous supply of postgraduates I believe would be a precarious undertaking. One six months the hospital might be well supplied with service from such a group, the next six months there might be a dearth of applicants and the problem would be great.

DR. CONLEY: Many of them were ex-interns coming back after eight or ten years.

DR. MORRILL: I sincerely hope that the next year may bring forth such an expression of opinion and such a crystallization of opinion that the work of the committee may advance to the point of some generally accepted program for the training and control of interns, in order that individual institutions may proceed intelligently to work out the details of their services, and here I realize that many of us meet many puzzling problems. On the other hand, until we have settled upon the general principles, we cannot very well involve ourselves in the discussion of such details as the number of weeks and months of various services, the proportion of men as between medical and surgical services, and things of that type.

DR. FRED C. ZAPFFE: This is a very good report, even though it is brief. It touches on every point concerned in the intern problem, and needs only elaboration, which I am sure the committee will give it next year. The Association of American Medical Colleges is primarily interested in the question from the teaching standpoint. We must have clinical laboratories just as we have laboratories of anatomy, pathology, physiology and pharmacology. These clinical laboratories are the places in which sick people are getting medical care. Here science teaching is applied in a practical way. We have placed our science laboratories in a position where they can do adequate teaching, and we are trying now to place clinical laboratories in the same category. We are not trying to standardize, because we have rather come to feel that perhaps we have standardized a little too much. The rigidity has been too great; so much so that everyone who has anything to do with the administration of standards is primarily interested in trying to see how he can ease up the rigidity. At our last annual meeting we adopted a new curriculum which is not divided into years, nor does it say when certain subjects may or should be taught. It deals in percentages of a total number of hours

in a group of subjects not arranged by years. We feel that the teaching of anatomy, for instance, is just as essential in the fourth year as it is in the first year, and perhaps more so; the teaching of pharmacology is just as essential in the fourth year and perhaps more so than in the first year. The medical student in his fourth year is supposed to learn the application of pharmacologic principles which have been taught in the first or second year and are often only a memory. Therefore, we say now that so many percentage hours should be devoted to pharmacology with sufficient latitude and leeway and election to remove, as far as it is possible to do so, the rigidity that has heretofore surrounded these requirements.

We are so much interested in this clinical laboratory proposition that we are favoring very strongly the teaching of clinical medicine early and the teaching of the so-called science in medicine throughout the entire course. We want our clinical laboratory to be as close to the college as possible. We would prefer to have the college in the clinical laboratory. That that idea is in favor at the present time is shown by the fact that hospitals and colleges are now being built under the same roof. We want the anatomist to be the consultant in anatomy in the clinic; we want the pharmacologist to be the consultant in pharmacology in the clinic, and we want the clinician to begin his teaching early and co-operate with the science teachers in the teaching of clinical medicine all through the course. To do that we need a good clinical laboratory. We must have a good hospital. I have often wondered as I have gone about the country visiting medical schools and hospitals, just what credence should be given to the statement that there is a shortage of interns. I have had deans of the best medical schools in the country say to me, "Show me the hospital and I will show you the intern." In other words, are the medical colleges going to have places for their students? Are sufficient teaching hospitals available? We want the student to spend virtually all his time, at least during his last two years, in the hospital as a clinical clerk. The system is not new; it has been in vogue in England for a long time. If you will read the report Sir Gorge Newman made recently to the Ministry of Health on the status of medical teaching in England you will find therein described exactly what we are trying to do here now. We are not seeking control of the hospital; we are simply seeking control of the medical teaching in the hospital. How many hospitals are suitable for such medical teaching? How many medical staffs can be utilized for proper medical teaching? When we give a man a diploma after his graduation in medicine, we want to feel that the signatures on that diploma stand for something. It is perfectly proper for ten States to require an internship as a requirement for graduation, but just how much are these ten States doing to see that they are getting what they demand? What do they

want these students to do during that year? Shall it consist of a year in residence or a year of teaching? Often such requirements are not enforced by further research into the work that is being done to meet the requirements. For ten States to make such a requirement means that they are barring their doors to the majority of the medical graduates. For eleven colleges to make this requirement is also proper, because those eleven colleges undoubtedly are taking every means in their power to regulate the teaching that is being done in the hospital, so that they can certify to its worth. So we find ourselves thinking of hospitals in different ways or from different points of view.

First of all, "Why does the hospital want this intern?" Is it to further better teaching of the practice of medicine; to give practical instruction? Or is it to get service, service paid for by giving maintenance? Or is it possible that there are some hospitals among the smaller group that like to have an intern because it is the fashion or because it gives prestige? As we see it, the supply of interns at present is more than sufficient for the hospitals that we think ought to have them, the hospitals that we think will give them the instruction they need. Are all hospitals giving us what we need? No, they are not. It is not the fault of the hospital, perhaps. Have we told them what we want? Have we made it clear that good teaching brings better service to the patients? As for the staff, it takes time to do that which they should do to make the teaching in the hospital sufficient as well as efficient. The teaching function should be secondary only to the care of the sick; in fact, it should be a part of the treatment. We are not saying anything about the length of service, because that is something that concerns the needs of the hospital. We are only speaking of the value of the hospital as a teaching asset.

We are particularly concerned in another aspect of this problem. It is this: In the desire to get interns, hospitals are over-reaching themselves and causing confusion in and disruption of medical courses. Many students sign up for an internship at the end of the junior year, which means that the hospital is getting an unfinished product when it accepts such a man for service. Those who have not secured an internship before their senior year spend the first five or six months of the senior year trying to sign on with a hospital. Of course the student wants to get into a certain hospital if he can; but he has a second and possibly a third choice and finally, if he must, he will take what he can get. But he is on his toes all the time reaching for this appointment, trying to get it. Naturally, he is neglecting his work. When the appointment is by examination, he is cramming for the hospital "exams," and consequently his fourth year in college is not worth as much to him as it should be. He gets too little out of it. We believe that if the hospitals could in some way agree among themselves and with the colleges not to make any

appointments or selections or hold any examinations, say, before the first of April, it would help very much to relieve the stress; it would do away with the disorganization of courses that exists now. It was that one thing in particular that led the Association of American Medical Colleges at its last annual meeting to appoint a committee to get in touch with the American Hospital Association on the whole problem of the intern. We want to know whether we can get together on the teaching phase, and whether we can get together on the method and time of selection of interns. We are not asking you to take our word for it that this or that man is worthy, nor are we trying to dictate the method of choice; we simply ask that some way should be found whereby the selection of the intern will be deferred until after the first of April of the senior year. I am quite sure that by getting together on that one question we will solve all the other problems in which we are vitally interested, to make the hospital the clinical laboratory in fact as well as in name.

MR. H. A. SCHROETTER: There is a tripartite interest and arrangement in this internship—the colleges or medical schools, the examining board and the hospitals—and there are two other parties very much interested, and that is the medical profession on one side and the public on the other. Now, I belong to the public. I have been connected with the Bethesda Hospital since its inception twenty years ago and watched the internship intensely. In the beginning we could not always get the interns; now we have plenty of applicants because we have a general hospital and they are very anxious to get there; but we must have more efficiency, and we are all interested in that greater efficiency, and while we hold a new program for college education, there is something we have to suggest, and that is that the medical board, the examining board, should give two certificates, and it might be also advisable that the medical colleges give a bachelor of medicine and doctor of medicine degree. Now, the licensing board should give a certificate for an internship first, and make it compulsory that they serve two years as interns, or a postgraduate course in some clinical college, and thereby interest the college as well as the hospital. If we get a two year internship compulsory to the doctor of medicine, we will have plenty of material for interns and the shortage of interns will be solved. Now then, in addition to that, we will also say that if you get over the dog, you also get over the tail—if these small hospitals have need of money, they must pay and can pay, if we all stand for better payment, and what we are recognizing here is that we ourselves, the hospitals, do not, neither from the public nor from the State nor anyone else, demand the proper payment for what we are entitled to in money, for, after all, it is a question of money. Why, we are standing here for the purpose of service; we cannot give the service without the money, and the intern is just as much entitled

to a compensation besides his studies, and I think that if we are taking this into consideration we will get plenty of interns and we will also get plenty of material and more efficient doctors in the future.

There is one thing we have seen in these reports twice or thrice—there was the excuse of the man who came here that he hadn't enough time to prepare his report and then afterwards we had the complaint that we had not a chance to read the report. Now I think there should be passed by this body a resolution that the authorities should appoint the committees within sixty days after the annual meeting and that all the reports should be in the head office thirty days before the time of meeting and that they should all be in print and should be arranged in the program according to the time when they are coming up for us to consider, for we haven't the time to hunt through that old book again when a thing is there, or, if a report or resolution comes in here, that report or resolution should be printed in the daily bulletin before it could be considered the next day.

MR. E. S. GILMORE: As I see this, the hospital and the medical school and the intern are all interested. The hospital says it has a shortage in interns; this shortage can be met if the hospital will give an intern service of sufficient value to attract an intern for two years, and any hospital that cannot give a service that will make it worth the while of an intern to stay two years ought not to expect to get one. If the hospitals themselves will increase the value of their service to the point where interns will be attracted and want to stay two years there will be no shortage of interns.

The question is, from the intern's point of view—can he afford to give two years? It has been stated this morning that he cannot afford to give two years. When we stop to think that the intern must have spent four years in a college or university, and now, two years in a university or college and then four years in a medical school and then one year as an intern, it is bringing him along to a time of life where he feels he must be self-supporting and it has been said that he cannot afford to give another year. One idea has been advanced—that the medical school might shorten its curriculum by a year. I do not believe that that would be good policy; I do not believe that the man who is going to have life and death as his responsibility can know too much, therefore I do not think that we ought to shorten the four year course in the medical school. However, I believe that, take two men of comparatively the same mentality and the same medical school training and put them in the same town, let one man have one year's internship and the other man have two years internship, and in five years from the time he graduates, the man with two years internship will have surpassed the man with one. If that is true, and I believe it is, I do not think that the young man can afford not to take two years. Of course there are conditions which

will change this. If he is a married man, he may have to support his family, if he has been put through school by the sacrifices of his parents he may feel that he cannot honorably ask them to continue those sacrifices and therefore has to get to work. If so, it is unfortunate, but I believe if he can put in two years, in the long run it will be to his most decided advantage.

As to whether the course should be rotating or special, my judgment is that the rotating course is the better of the two, for this reason—the young man ought not to enter any specialty immediately he gets through his internship; he ought to practice general medicine for a time, until he learns medicine in its widest scope. To do that, if he can have a rotating service, he picks up something of all parts of medicine and surgery. It is true that if he gives but one year, he cannot pick up very much; therefore I believe in two years, so that the rotating service may cover a period of two years and give him more service, give him something really worth his while for spending time there. Were I an intern, and could I do it after completing my university work, I should take two years internship and then I should want to take one or more years as a resident in a good hospital with good laboratory facilities and plenty of patients; then I believe that within ten years or within five years after I had finished my residentship in the hospital, I would be far and away ahead of where I would have been had I not taken that extra time.

DR. M. Z. WESTERVELT: A great deal has been said as to what requirements should be expected of hospitals, but I have not heard a word said as to what requirements should be expected of the interns, or rather how are the hospitals to be protected from the change of mind of a prospective intern. I will simply quote the conditions that we have met in our hospital. We have the rotating intern service, fifteen months, requiring four new interns each year. Of course those interns must be signed up, as we call it, about the close of the senior college year. I have at present on my desk at least twenty applications for intern service. Upon receiving those written applications, we send them a printed application form together with the last annual report of the hospital, a copy of the rules and regulations governing the intern service, also a letter asking them to read those pamphlets carefully, give them consideration, and then, having considered all of those facts, if they still wish to make their application, to fill out the enclosed form. The enclosed form provides for a brief personal history, two references, calls for a statement or a report from the secretary of their college covering their first three years' medical work, freshman, sophomore and junior, with class averages of those three years. We do not have an examination for entrance. Now then, having received that application back, we at once write to the references that have been given and secure their

replies. Then that information is all laid before our intern committee. They go through these several applications and from the information therein given make first, second and third choice for each of the four vacancies that will occur during the year. The first choice of each vacancy is communicated with at once, told that their application has been accepted and we enclose therewith two copies of a form of acceptance, which starts by saying, "I hereby promise to fulfill the duties of an internship in the Staten Island Hospital for a period of fifteen months beginning at such and such a date and ending," etc. One of these copies they retain; the other they return to us. It would seem to us, it has always seemed to us, that that form of acceptance should be binding on that applicant—and yet what is our experience? We cannot put all four interns on service the first of June; one goes on in September, one in December and one the following March. Just this year, not two weeks ago, I had a very brief and curt letter from the December appointee, saying that something had arisen that he could not accept the appointment. What is the situation? All of the best material have been appointed, possibly are in hospitals; we have to advertise for an intern to fill that vacancy and we have to take just what we can pick up at this time of the year. I am very glad of this suggestion of Dr. Conley's about taking on a postgraduate intern; that may be a solution of our problem, I do not know—but is there not some way that we can impress upon the prospective intern, or have the colleges impress upon the prospective intern, the meaning of a promise, what that should mean to them? And if one of these prospective interns violates that promise or form of acceptance, is there not some way that we can hold the lash over them? I do not know that I would want such an intern in my hospital after he had used me that way; but I do think there should be some way of disciplining that man so that he could not say, "I will come to you next December," and in the meantime trot off somewhere else and leave us or you in the hole when the time comes for that appointment to be filled. So I think there is something to be said on both sides of the question.

DR. COLLINS: With the present internships, take for granted it is one that is satisfactory—within one or two years the recent graduate gets more real experience than in five or possibly ten years without such internship. It is worth his while therefore to spend two years, if necessary, where he sees also that he is getting what he wants.

Hospitals have differed and still differ very widely in the character of the experience that they can give interns. A curriculum which might fit one graduate would not fit the majority of others, a curri-

culum which would fit one hospital would not fit many others; it is still a decidedly varying quantity.

MR. EVANSON: The importance of this subject has been brought out and I would hesitate to dwell on it if it did not seem of such tremendous importance to our hospitals. It seems to me that those institutions which have demanded the fifth year have taken upon themselves tremendous responsibility, unless they are going to assure the graduates of their schools that the hospitals where they take their internship are going to give them the thing that they demand and ought to have. We spend four years in our medical school giving the finest type of instruction to a prospective physician, and then we turn him out and say, "You have got to take your fifth year and go to some hospital," and there is no more supervision over the type of work that man is going to get in that hospital than there is over the moon. Has any medical school a right to say to a man, "You must go into a hospital and take a fifth year," without assuring that man that the education and training he is going to get there is going to be equal to what he has gotten in his four years at the medical school? Dr. Morrill and the President of the Association of Medical Schools has pointed out that the organizations interested in the medical schools, the State Board of Licensure and the hospitals, should get together and determine upon some standard.

We speak about the lack of interns in the small hospitals, yet I venture to say from practical experience that the small hospital of fifty beds that has two, three or four or six good men on its staff, can give a better internship to one man or two men without a rotating service than in the hospital which has a rotating service when four men or six men come in on the first of July.

Have any of our hospitals out in the country districts considered affiliating with the medical schools in our State? How many of the superintendents of hospitals have gone down to their medical schools in their State or the medical school nearest their home and got acquainted with the heads of the medical schools and got them out to their own hospitals in the country and talked to their staffs regarding the training of those young men who are going to be sent out next year to go into the hospitals as interns?

CHAIRMAN GRUBER: The hour is getting late and I believe we will have to curtail further discussion. I will ask Dr. Faxon if he has any closing remarks?

DR. FAXON: I just want to say that I am ever so much obliged for the discussion that has taken place. It is the best way in the world to help the committee.

AMERICAN HOSPITAL ASSOCIATION

CHAIRMAN GRUBER: The only trouble is they should have had the whole forenoon. I believe there are other people here who would liked to have said something.

It was moved and carried that the report be accepted and returned to the Trustees with recommendation that the committee be continued for another year.

The session then adjourned.



THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin,
November 1, 1923, 2:30 P. M.

Miss Talitha Gerlach in the Chair

SOCIAL SERVICE SECTION

CHAIRMAN GERLACH: Social Service as a topic for discussion this afternoon needs no recommendation from me, because your very presence here shows you are interested in it.

PRACTICAL SOCIAL SERVICE

By Mrs. Gertrude Howe Britton
Superintendent Central Free Dispensary
Chicago, Illinois

I take it that everyone is agreed on the need for and the possibility and the practicability of providing social service in connection with the medical service of any general hospital or the out-patient department of a general hospital. The point which I wish to discuss is not the need, then, but the general plan and policy of carrying out this service.

In any institution or dispensary where the need is sufficient to warrant the consideration of providing a special social service department, the first question that comes to those charged with the responsibility of providing this department is the cost of such a department.

Any institution, where the ideals of the institution demand a definite standard of efficiency of service in other departments, will, of course, demand that the work done by its social service department be reasonably sufficient and efficient. The cost of such a department, then, is determined by the number and caliber of the personnel. The number and caliber of personnel is determined by the general policy and method of carrying out this service.

The social and economic problems incident to sickness are often very difficult and complicated. It has been repeatedly shown that the adjustment of these problems is frequently the determining factor in carrying out proper medical treatment. The diagnosis of a social condition, just as the diagnosis of a medical condition, is determined by the accuracy with which the various factors are interpreted. It sometimes happens that a doctor, from years of experience, may accurately diagnose a condition from very slight knowledge of a case, but even the wiser ones have found it poor

practice to make as we say "snap" diagnoses. So it is with the social service worker. One may, through years of experience, be able to make an accurate judgment of a social condition with very few facts on which to base this judgment; but in the long run this method of doing work is very poor policy. Anyone, then, who pretends to do so-called social service must know the facts in the case before they pass judgment. Either they must have a system by which they will collect these facts for themselves, or the facts must be collected for them. Just as the diagnostician must send his patient for an X-Ray or blood count before he makes his judgment, so the social service worker must have the facts regarding home conditions, employment and other similar factors. The doctor must have his laboratory, the social service department must have its field service.

According to our present way of thinking, medical social service is an essential part of modern hospital or dispensary service and if this work is to be effective and worth while, we must plan for the fundamental essentials of central office and field staff. Provision for these fundamentals of organization is simple, or not, depending upon the community in which the organization functions. In some communities this plan is simple, economic and effective; in other communities it is complicated and may become so expensive in operation as to preclude the possibility of using it. For example, let us take an isolated mining community where all the medical service of the community is centralized in one hospital. In that community there would, of course, be but one health organization—the hospital, its single staff of doctors, one nursing organization and one field staff. The situation which we have in a city like Chicago, however, is entirely different. There are many hospitals and many different groups of doctors, nurses and field organizations. Let us take the Central Free Dispensary of Chicago, which is the Out-Patient Department for Rush Medical College and the Presbyterian Hospital. This dispensary does not limit its service to one definite group of people, or to one section of the city. Its patients come from all sections of the city and even from its surrounding towns. The daily number of patients seen at the dispensary is approximately three hundred. Our experience has shown that the number of cases in which social service requiring outside investigation is needed averages about twenty per day. These twenty cases may be scattered over a territory of 200 square miles. To maintain a field staff sufficient to adequately investigate these 20 cases a day would necessitate a cost out of all proportion to the cost of all the other service. Must we then say that social service for the dispensary or hospital in a city like Chicago is impossible because of the pro-

hibitive cost? We would be compelled to reach this conclusion if there were not some other way of meeting the situation.

In Chicago there are many social agencies, both public and private, which have been organized to serve the community and carry out their service through field agents. Many of these agencies are sufficiently large so that the activities of their various agents are limited to small districts. Typical of this kind of organization are the Visiting Nurse Association, the County Agent, the Municipal Sanitarium, the Infant Welfare Society, the United Charities and the Chicago Health Department. In addition to these larger organizations, there are many smaller ones. Indeed, there is no district in Chicago which is not covered by field workers from one or more of these organizations.

If the social service need of those coming to a general hospital or dispensary was something which had no relation to the activities of other organizations in the community, then there might be some argument for a special staff of visitors, in spite of the effort and expense involved. But health problems are so frequently the fundamental cause of all social difficulties that there is no such thing as separating the work into a distinct unit. In actual practice we have found that the cases needing our social service are either already known to one or more of the agencies doing regular field service, or are the type of case in which these agencies would ordinarily be expected to be interested. In actual practice it is possible for the Central Free Dispensary to learn through the Central Registration Bureau of Chicago what agencies have already become interested in any given case. It is then possible by communicating directly with this outside agency to get the report of a field investigation. If the case has not already been investigated, it is usually possible by presenting our side of the case to the proper field agency to have an investigation made for us.

The solution, then, of the difficulties incident to the management of the necessary field service for the social service department of a hospital or dispensary operating in a large city is through cooperation. Most welfare organizations in large cities, which normally maintain a staff of field workers, deal with cases where a certain amount of medical service is essential. They know about the home and other outside conditions. They bring or send their cases to the hospital or dispensary. For any hospital or dispensary to assume the responsibility of reinvestigating home conditions which are already known is not only expensive, but is a useless duplication which does not in any way help solve the problems of the community; a properly thought out plan of cooperation is the funda-

mental essential of carrying out a social service program in any large community in which many different agencies are operating.

Cooperation, then, is the thing that must be planned for and carefully studied in order to utilize the already accumulated knowledge of cases which come for medical relief. It becomes necessary for the organization of the central office to be planned with this fundamental idea in view, if a social service department is to be run economically and efficiently. A great many people have argued that a medical social service department, in order to be efficient, must be furnished with special data which cannot be obtained ordinarily from the average field worker, but can only be obtained by an investigator especially trained in medical social service. We will grant for argument sake that one especially trained in medical social service should be able, when making a field investigation, to get data better suited to the purposes of a medical social service department. But as stated before, the extra expense incident to the collecting of this data by specially trained investigators is out of all proportion to the service rendered and hence is for practical purposes impossible. The solution of the difficulty, then, lies in the selection of the personnel of the central office and the adoption of a general policy of cooperation. We must not take the stand that because the work of other agencies is incomplete or insufficient, we therefore cannot use their help and must make an investigation ourselves. But if the proper spirit of cooperation prevails, a simple request for information or further investigation, when the necessity for such additional information is explained, is sufficient to get the data requested.

The central office staff of a medical social service department in a community like Chicago constitutes the majority of the staff. While I do not think that one should attempt to get along entirely without some field work, the great majority of the effort should be placed in coordinating the knowledge and efforts of the many organizations interested in social welfare problems.

The medical social service worker should be closely associated with the actual medical work of a clinic—she should be close enough to the medical staff to correctly understand and interpret the things to be accomplished as indicated by the doctor in any given case, she should know the medical diagnosis and the plan and essentials of treatment.

From this as a starting point, she should then get the patient's story as to what the possibilities are for carrying out the medical plan, and her purpose of investigation should be to determine whether or not there are social factors which would interfere with the carrying out of this plan. Her judgment as to the possibility

of carrying out this plan in each case must be determined not alone by the story which she hears, but by the story which has been verified. The skill with which she interprets this story and the skill with which she obtains cooperation with outside sources determines the degree of her service to the individual and to the community.

The cost of all social service, including medical social service, must come from the community served. The service must be worth the cost. Duplication of effort is never justified and will not be supported by an intelligent community. It is possible to get the desired results without duplication. "Cooperation and Coordination" should be the motto and this motto should never be forgotten.

HISTORY AND DEVELOPMENT OF HOSPITAL SOCIAL WORK

By Mary Antoinette Cannon

President American Association of Hospital Social Workers,
New York, N. Y.

Once upon a time a small boy wrote, in a would-be prize essay on tuberculosis, "Tuberculosis was discovered by Doctor Trudeau who had it in the Adirondacks in 1844." Likewise, we are prone to think of hospital social work as having been discovered, if not invented, by such and such a leader who did it in a certain place at a certain time. This is not its history. It would be absurd to try to trace in elaborate detail the remotest origins of such a pattern of activity, but it may be of use to review early history enough to obliterate any sense of proprietorship which may linger around it in our minds.

Hospital social work is not a simple nostrum, or we should not have heard, until it has become bromide, the statement that after all we don't know what the job is; we should not be going through such a struggle for a definition of our function; and the American Hospital Association's committee on hospital social work would not have listed as parts of it ninety-nine different, and more or less unrelated, duties.

It is well known that there were several centers where social work developed in connection with hospitals about eighteen years ago. At first these movements had little influence upon each other, but, growing out of similar needs, they took one turn or another, according to the interpretation of those needs given by local leaders.

What were the elements in the hospital situation at that time which served to stimulate the response we call social work? First, there was the resourcelessness of the sick, appealing to the human sympathies of those who came into contact with them, especially

of physicians and nurses. Second, there was poor response to treatment on account of conditions not under medical control; this was evident in cases of ward patients who were under strain of anxiety and in many cases of out-patients living in poor circumstances. Third, there was preventable sickness, and medicine was becoming alive to that phase of its problem. Unnecessary recurrence of sickness was particularly potent evidence of this, and one which appealed to the sense of economy, financial and human. Fourth, the use for teaching purposes of patients apart from their homes in wards and clinics limited the opportunity of the medical student to learn at first hand the significance of immediate environment in relation to sickness and to treatment. Probably all these factors operated in every instance in which medical social work was developed, but one or another was uppermost in the minds of the organizers.

In such great public hospitals as Bellevue and Cook County Hospital poverty and resourcelessness were irresistibly evident, and incidents are related of the tragic results of lack of attention on the part of the hospital to extra-medical needs. I am told that it was a sense of responsibility to the community for the patient's subsistence as well as his health that led the Cincinnati General Hospital to provide, at the hub of its great wheel-shaped building, a social worker who should scrutinize every discharge and see to it that suitable resources were used to reinstate the patient in life outside the hospital.

At the Presbyterian Hospital in New York, as early as 1904, the superintendent of nurses noticed that some of the ward patients did not recover health as rapidly as might have been expected under the care they were receiving, and thought of sending out a nurse to make inquiry into home conditions in quest of sources of worry. Needless to say, such sources were found, and thus social work originated in this hospital as an extension of nursing service. This quite logical historical link between nursing and social work is, I believe, of importance for us to keep in mind in trying to interpret the present varying activities and relationships of the hospital social worker.

The question of the prevention of sickness which was in some measure related to ignorance and bad environment presented itself early to leading physicians and social workers in Boston, and the social service department at the Massachusetts General Hospital was founded largely as an attempt to economize medical skill—"to make treatment effective," as Doctor Cabot then phrased it. You will remember his illustration of the waste common in hospitals—"Baby gets sick, baby comes to hospital, baby gets well, baby goes

home, baby gets sick, etc.," and his emphasis upon the attempt to break into the circle at the sector of the home. This point of departure led to many community relationships, and the gathered experience of workers in established social agencies was applied here so effectively as to exert a lasting influence on policies and technique.

The great example of the educational approach to the organization of social work in hospitals is the work of Dr. Charles P. Emerson at Johns Hopkins University, where, in 1903, he arranged to have his students visit the homes of patients with the visitors of the Baltimore Federated Charities. This led to the establishment of a social worker in the hospital (1907), and, thereby, to more attention to "backgrounds" in the care of the sick.

In preparation for this paper I sent letters to about sixty social service departments asking news about the changes which had taken place in their work since its beginning. I have letters in reply from thirty-two, and printed reports from others, and upon these I base my present statements. I have, however, taken the liberty of supplementing the information thus received with whatever knowledge I had from my own personal observation over the past sixteen years.

There are some definite tendencies apparent in the organization of social work in hospitals. In a number of hospitals the work was instituted as a volunteer, auxiliary service, or as a contribution to the hospital from some lay group, received by the administration with more or less tolerance. Today most of these irregular organizations have become parts of the hospital system, with all the responsibilities, restrictions, and privileges belonging to it, and when a new piece of social work is started it is usually as an organic part of the hospital. In a good many cases salaries are still supplemented by auxiliary committees. This is especially likely to be true in public institutions where salaries are fixed by legislative appropriation.

Since these beginnings nearly twenty years ago, the work has been established in more than 400 hospitals throughout the United States and Canada (I omit—not for lack of appreciation, but for lack of exact knowledge—the interesting developments in England, which antedated this country in actual work, if not in use of the name "hospital social work;" and recently in France). The directory compiled by Miss Ida Cannon for the Service Bureau of the American Hospital Association in 1921 lists 397 departments, and is already behind the facts. A large department, like that of the Massachusetts General Hospital or Bellevue, costs from \$40,000 to \$50,000 yearly to maintain. Many of the "departments" consist of one worker only, with volunteer assistants, and the cost may be as

low, perhaps, as \$2,000. If the average cost were \$5,000 per department—which seems a conservative estimate—the whole cost of 400 departments would be two million dollars. This growth, which continues year by year, indicates a service great enough to secure substantial community support.

The auxiliary committee still exists in the majority of hospitals and seems to be increasing in usefulness. Originally the sole source of financial support of social work, these devoted groups might easily have illustrated (and I believe they did in some cases) the disadvantages of too much lay direction of professional work. However, with the increasing use of trained workers, and the sharing of financial responsibilities, there have developed the educational and supplementary functions of the auxiliary committee rather than the directive. The committee serves primarily, it seems to me, as an interpreter of social work to the public and especially to that well-to-do and presumably enlightened public which it represents. The volunteer services performed by committee members, and often excellently organized and managed by them, give them an opportunity for first-hand knowledge of social problems and the results of social treatment; they also have opportunity to learn many facts comparatively directly from reports of workers and to study social work in action. Lay direction may be a hindrance, but any criticism, when unbiased and constructive, is always a wholesome and helpful thing, and so the committee may help to keep up the standard of social work as well as to make it understood by the citizenship upon which it depends for material and moral support. Committees have been helpful in the developing of community resources and facilities the need for which was shown through hospital social work. They have helped to bring about cooperation among agencies, through exchange of information and opinion in "interlocking directorates." They have interested young people in social problems. They can take up questions of public policy and reform which the individual worker is unable to affect. I believe that such should be the interests of the auxiliary committee, and that it should not attempt to direct the conduct of cases as such.

The usual form of organization of social work, where there is more than one worker, comprises a supervisor or director of social work, with assistants who are assigned to various departments of the hospital. There is also, usually, some clerical assistance—one or more stenographers, and sometimes a bookkeeper. Volunteers are still much in evidence, but they are directed by members of the paid staff—or by the paid worker, if there is only one. In earlier years, social work was often confined either to wards or to the out-patient department. Now it covers both parts of the hospital,

and there seems to be a tendency to do away with the division of labor between them, and to divide the social staff according to hospital departmentalization—that is, one case-worker will be assigned to medical wards and clinics, one to surgical, one to obstetrical, etc., etc., the number of workers (one, more than one, or part time of one) depending upon the size of the department and the services demanded of the social worker. The organization of medical work, I believe, is tending also in this direction, and for the same reason, namely, to secure more continuity in the treatment of cases.

The activities coming under the head of social work in the hospital have multiplied and developed during the past sixteen years. In general, they have a tendency to follow the same lines which medical activities follow. Usually medicine leads the way; not always. Several departments of social work report that they are doing more intensive and complete case-work than they did in their early years. This is in line with the tendency in clinic medical practice to use a more thorough case method of diagnosis and treatment, to which medical social work contributes. This also reflects the progress made in other fields of social work in the perfecting of methods of case treatment.

Moreover, social work in hospitals, is becoming specialized within its own field, following the specialties of medicine. We have now, for example, a special method of managing syphilis clinics, tuberculosis classes, groups of cardiacs (both children and adults), mental defectives (in and out of institutions), and many other groups in which the medical diagnosis at once indicates a related social problem. The special work most frequently mentioned in my thirty-two replies is prenatal and postnatal care for mothers and babies.

In some instances, the social worker teaches these patients in groups or classes, as well as individually. Class work has been successful with the tuberculous, the cardiacs, diabetics, undernourished children, and mothers of young babies. Other cases treated in groups include fracture and goitre. This group treatment is no doubt increasing, not at the expense of, but in combination with, individual case treatment, without which it would lose the distinctive social work method and character.

Besides this growth in case and group treatment, there are other developments in the application of social work to hospital uses and these I shall take up briefly under the headings: (a) management of patients, (b) teaching of pupil nurses, (c) research.

The report of the American Hospital Association Committee on Hospital Social Work published in 1920 speaks of "certain administrative activities which relate to groups of patients rather than to

individuals, or to the community outside" and says, "Some of these administrative activities have large elements of social relationship or involve the careful dealing with personalities of patients or others. In such activities social service has a reason to participate." It then lists the duties thus described as:

Assisting in admission,
 Providing information on which rates can be used,
 Interpreting,
 Aiding in management of clinics,
 Furnishing information to outside agencies,
 Friendly services.

Now, if administrative activities are, as the report indicates, those activities which are not themselves medical but exist for the purpose of "assisting medical service, or giving it the right conditions to work in," then, under this broad definition, these six duties may be classed as administrative. (So could social case work in the hospital.) One, the exchange of information, directly relates to the hospital's relations with other community agencies. I note none, however, which "relate to groups of patients rather than to individuals," and I believe the participation of the social worker in these hospital duties is justified—when it is justified—because as a social worker she brings to the management of patients the case rather than the group method and point of view. This seems to be the emphasis in Cornell Medical School Clinics, in which within the past two years a complete staff of socially trained registrars and clinic managers has been installed. Another experiment in this line undertaken within the past year is the employment of an experienced social worker in charge of the admissions bureau at Johns Hopkins Hospital. Mount Sinai Hospital, Cleveland, employs a social worker as fiscal agent of the out-patient department. The relation between management of patients and social case treatment has nowhere been quite satisfactorily expressed, but there is no doubt that it must be very close.

I do not know just when the department of social work began to take part in the training of student nurses, but this is now an established custom in a considerable number of hospitals. Last year a "round-table" study group in New York made an attempt at a brief survey of the schemes in operation throughout the country in this regard. Of thirty-two hospitals, from which they got reports, eleven gave to selected student nurses from one to three months of theoretical and practical training in social work, and seven others gave lectures on the subject, and, in some cases, observation trips, also. Eight other hospitals report either a temporary discontinuance of social training (owing to shortage of nurses) or a plan for social

training not yet in execution. There has been a good deal of comparing of notes as to methods in use, and this contribution of the department of social work to the hospital bids fair to become a standardized service. Of the two main types of teaching now in use, practical and theoretical, I should prefer the theoretical, provided it included observation as well as lectures and class discussion. Its advantages are that it reaches the whole student body instead of a selected few, and that it avoids the danger of making the nurse think she has had full training in social work.

About research I have but little to say, except that I believe it to be a real possibility in hospital social work. A beginning has been made in the studies of selected cases at the Massachusetts General Hospital and Indiana University, and in the job analysis and experiments in organization carried on under the Dispensary Development Committee of New York. At the Massachusetts General Hospital a study has been made of health problems of a group of working girls, and one is now in process on results of treatment of cardiacs. At Indiana University students have gathered information and written master's degree theses on a number of medical social problems represented in hospital and dispensary cases—the crippled child, the neurotic patient, and others. Such studies, if carefully planned and carried out, may much improve our understanding of the relationships between certain environmental conditions and certain diseases and defects and so guide medical and social treatment.

The work of the Dispensary Development Committee represents another type of study, the method of which is less like that of medical research and more like that of the social or industrial survey, comparatively new in application to the treatment of the sick. In such a piece of work, for example, as the reorganization of Cornell Clinics, already referred to, the committee studied every procedure in the handling of patients, costs, results, and community needs, and, then, as changes were instituted, checked and compared results. The conclusions from such work as this are immediately put to the test by being put into operation. This study method, therefore, influences practice more quickly and directly than does the case or laboratory method. Neither will take the place of the other; both are necessary, and both call for the handling of material statistically and for the exercise of critical judgment.

One of the reports of hospital social work which I have read this month voices the fear of a modern tendency to become over statistical and over critical in our dealings with the sick and troubled. I do not share this fear. I find in my acquaintance with physicians, nurses, and social workers, no lack among the most studious of

them of human sympathy and altruistic purpose. I believe that it is in the interest of those for whom we spend our efforts, those disabled and suffering humans, with whom we may well have a fellow-feeling, for we share their disabilities and sufferings—I think it, I say, in their interest that we add to the good intention of the medical social worker the further equipment of a trained critical faculty and some instrument of precision. In sixteen years I have seen much kindly and well-meant effort—some of it my own—wasted through lack of knowledge.

The question of what training is most useful for hospital social workers has had attention since they began to exist. As in other trades and professions, the first training was apprenticeship, and, it was, in most instances which I know, good training. Experience—that reputable teacher—was often supplemented by the guidance of some of the wisest of medical men, and beginners were given opportunities to observe and assist in many up-to-the-minute enterprises. As the demand for workers increased and as experience in the new field accumulated, the inevitable pressure toward organization in teaching made itself felt and different ideas were advanced as to what was demanded in preparation for the work. Several schools of social work became interested and offered at first isolated lecture courses and then classes plus practical field work in established departments of hospital social work. Meantime, preparation by apprenticeship went on, it still goes on and no doubt will for some time to come. Interest in the subject culminated in 1921 in the appointment by the American Hospital Association of a committee to study and report on training for hospital social work. The report of this committee you have seen. It is an attempt to state the function for which training is required and to suggest the necessary personal qualifications for it and a course of training covering theory and practice.

There is now a widespread sentiment on the part of executives of organized social work in hospitals in favor of the employment of workers especially trained for the job. Out of my thirty-two letters I gather that fourteen departments require their workers to have had training in a school of social work or experience in a social agency; some education or experience in health work is required, also, in most of these, and special medical social training is preferred. Three of the fourteen mention a college degree as a requirement. Nine departments require nurse's training plus public health or social training, and five require either nursing or social training. One department reports "no staff," and here the one paid worker is a nurse with experience in hospital social work. She trains her own volunteers. One reports "partially trained" workers, and this I

know to be because of the dearth of fully trained workers in that part of the country. Two make no report on this question.

I shall not try here to discuss the content of training courses. I have already spoken of the desirability of their giving methods of analysis and developing critical judgment. It is that point which I wish to emphasize as important in relation to the future growth and efficiency of the work.

Count Korzybski in his book "The Manhood of Humanity" gives us the idea of a faculty of man which differentiates him from all other animals—Korzybski says "from animals." He calls this the "time-binding" faculty. By this he means the ability of man as a race to make use of past experience and thus to control in some measure the future. One of the ways in which man does this is by making and using records of his experience.

Such a concept gives one a new respect for a part of the day's work which has heretofore received but grudging or hasty attention at the hands of workers interested primarily in doing something for somebody. Records may be individual case histories, statistical studies, or annual reports, but in any case they serve, if they serve their best purpose, to give us a means of learning from past experience and passing that learning on to a future generation of students and workers. I do not mean that every act must find its parallel in written words to be filed away. Perhaps we need fewer and shorter case records and counts of letters, visits, and telephone calls, than many of us are now making. The Massachusetts General Hospital in its last report states its policy with regard to recorded and unrecorded work; the Philadelphia General Hospital has a similar well defined system, and the pressure of clerical work in large institutions will no doubt bring about their general adoption of such a plan.

What I would suggest now is more agreement upon a few fundamental elements in our reporting of work. Histories need not follow the same form always and in all hospitals, but I see no reason why each social worker, who writes histories at all, might not produce in a year a few which state in commonly understood terms the medical-social situation to be dealt with, the action taken by doctor, social worker, and other agents, the ensuing progress of events, and the final situation, if the case is closed. If these could be combination medical and social records, so much the better I think.

Perhaps, in the meantime, a small number of current cases could be studied in detail, for we need qualitative analysis.

For annual reports we might agree to define and count, perhaps even to classify cases in the same way for a certain period of time. At present it is impossible to compare case loads, to say nothing of

accomplishments, under varying systems of organization. In laying plans for new work it would be helpful to be able to do this, and, also, to know what proportion of ward and dispensary cases of various types have, in our recent experience, required social work. It is rarely possible to get any idea of such proportion from published figures. Of the thirty-two social service departments replying to my recent question on this point, only two—Bellevue and the Boston Dispensary—were able to report as to the proportion of hospital cases referred for social work in this year and other years. These two reports are interesting. Bellevue social service department handled $1\frac{1}{2}\%$ of the hospital's 109,105 cases in 1906, in 1922 it handled 6% of 289,032 cases. Boston Dispensary referred for social work eighty-one cases out of 32,882 in 1905, less than one-third of 1%. In 1922 the Dispensary's social workers handled nearly 4,000 intensive cases out of a total dispensary load of about 2,400, or nearly 16%.

Lincoln Hospital, New York, and the Polyclinic Hospital, Philadelphia, have figures showing the proportions for 1922. Lincoln shows 20%, the Polyclinic 2%. The absolute numbers handled are somewhere nearly the same in the two departments, about 3,800 in Lincoln, and about 4,400 in the Polyclinic. In order to get a proportion, both hospital and social service department must count both carried forward and new cases, or else all cases new in year, in order to get the number of individuals treated. This seems not to be a general custom, although a count of individuals treated in the year is included in the report required by the New York State Board of Charities from New York hospitals and dispensaries, and would seem possible everywhere.

Such variance as that between the 2% of the Polyclinic and the 20% of Lincoln at once raises questions as to meaning of terms, kind of work done, and results obtained. These questions might perhaps come first, but sooner or later some defining, measuring and evaluating must be done if we are to keep what is best in our tried methods of work. Some such attempts at "time-binding" I am urging to further the progress of social work in hospitals.

THE DEVELOPMENT OF PSYCHIATRIC SOCIAL SERVICE

By June E. Lyday, Chief Psychiatric Social Service, Psychopathic Hospital, State University of Iowa

Psychiatric and medical social workers always have had much in common through the similarity of their interests and activities in the field of health, and the history of the development of psychiatric

social service is in a large part the history of medical social service. The close relationship between these two groups of social case workers was recognized officially in 1922 when the American Association of Hospital Social Workers sanctioned the organization of a psychiatric section within its ranks. Since then medical and psychiatric workers have been sharing in discussions of social problems related to physical and mental health, both in the various district meetings of the Association and through the columns of its monthly publication, "*Hospital Social Service*."

The section on Psychiatric Social Work now has an enrollment of fifty-three members who have met the requirements of training and experience. Graduates of recognized training courses in psychiatric social work of not less than nine months duration are eligible after they have held a position in psychiatric social work for one year; graduates of schools of social work who have not taken a special course are eligible after two years in a position in psychiatric social work; and persons who have not taken formal training, but have met certain educational requirements are eligible after four years of successful accomplishment in psychiatric social work. It is estimated that at the present time, throughout the country, there must be nearly two hundred qualified psychiatric social workers, the majority of whom have graduated from schools of social work. New positions constantly are being created in this field, and the demand for well trained psychiatric workers is still much greater than the supply.

This development in psychiatric social service has taken place almost entirely within the last ten years, following the establishment of the Boston Psychopathic Hospital in 1913. At that time only one or two of the Massachusetts and New York State Hospitals were employing an after-care worker, although, in England, patients discharged from hospitals for the insane had been receiving friendly supervision since 1880, through the Society for the After-Care of the Insane. The Massachusetts General Hospital, however, had a social worker in its neurological clinic, and, in addition, had developed such a high standard of general hospital social service that Dr. Southard was encouraged to organize a similar department in the Psychopathic Hospital under Miss Jarrett, where in a large measure the part that the social worker was to play in the mental hygiene movement was created and received its name—psychiatric social work.

In 1918 this hospital cooperated with Smith College in giving the first formal training course in psychiatric social work, in an attempt to meet the government's need for social workers equipped to assist the army psychiatrists in neuropsychiatric hospitals. This

course was afterwards developed into an intensive thirteen months course, and the New York, Philadelphia and Boston schools of social work have included similar courses in their curricula within the last five years. Introductory courses are also being given by a few colleges and universities with considerable success where the institution has adequate facilities for thorough groundwork in sociology and the social sciences as well as a department of psychiatry of high standing and some clinical material. These conditions have been met at the University of Iowa, and the Psychopathic Hospital staff and the Department of Sociology are cooperating this year in giving an undergraduate course in psychiatric social service to a limited number of selected students, who probably will take further graduate training in social work.

Although this development of psychiatric social work may seem at first almost unwholesomely rapid, a closer survey will show that it is but the natural result of certain changes that have been gradually taking place in the fields of social work and psychiatry and in social thought in general during the last twenty years. The social worker has recognized for some time the primary importance of personality factors in the differential treatment of social maladjustments, and the accepted aim of social case work today may be said to be the upbuilding of character. Science offered the social worker little assistance, however, until psychology left its pursuits in philosophy for clinical measurements of intelligence and studies of behavior, and psychiatry began to concern itself with the diagnosis and treatment of borderline cases and with the prevention of mental disease. While the doctor and the social worker were learning the inter-relationships between physical health and social problems and medical social service was developing, the case worker and the psychologist and the psychiatrist were discovering common problems in the failures of certain individuals to adapt themselves successfully to their social environment. Mental hygiene concepts, in the meantime, were being so popularized by lecturers and writers that all types of social organizations were coming to adopt a psychological approach to their problems. At this point, it is not surprising that a new form of social activity, known as psychiatric social work, should come forth to meet the needs of the social worker, the psychiatrist, and the community at large.

At the present stage of the development of psychiatric social work we see a variety of trends, which can be outlined only briefly in this paper. The need for workers in hospitals is still a pressing one; but already the four psychopathic hospitals in the country have social service departments, fifty or more state hospitals are employing after-care workers, social work in the public health neuropsychi-

atric hospitals is now fairly well organized, and a number of general hospitals and dispensaries have psychiatric workers attached to their neurological clinics. Many of the schools for the feeble-minded also have field workers on their staffs. The social worker has played an important role also in the development of the out-patient departments and traveling clinics which are attempting to meet the psychiatric needs of various communities. The contribution that the psychiatric social worker may make to the work of the psychiatrist by bringing in social data helpful in arriving at a diagnosis and by effecting social adjustments that will assist in treatment are now generally recognized by the medical profession and some psychiatrists are employing psychiatric social workers as assistants in their private practice.

The courts have long been accustomed to call upon the psychiatrist for expert testimony in the matter of insanity and on the question of "responsibility," so important in a system of criminology based upon the theory of free will and retribution. With the establishment of juvenile court procedure, however, this emphasis has changed somewhat to a study of the individual offender and casual factors, in an attempt to discover treatment which really will bring about reformation. The large part which mental deviations may play in causing crime has been suggested in the results of various psychiatric surveys of prisons which have been made, such as those of Doctor Adler and Doctor Glueck. A number of juvenile courts throughout the country now are making use of psychopathic clinics for child study, like the Juvenile Psychiatric Institute in Chicago and the Judge Baker Foundation in Boston. There, intensive personality studies are prepared, based upon thorough physical, mental, and social investigations, and the indicated individualized treatment is suggested to the judge. A few adult courts are following the example of the juvenile courts, as, for instance, the Recorder's Court, of Detroit, which established a psychopathic clinic in 1921 under Doctor Jacoby and has completed comprehensive psychiatric, psychological, and social examinations of more than three thousand offenders. This court also employs a trained psychiatric social worker as one of its women probation officers.

The Commonwealth Fund for the Prevention of Delinquency is carrying out a remarkable program in this field, under the direction of Dr. V. V. Anderson of the National Committee for Mental Hygiene, in establishing a series of Child Guidance Clinics throughout the country in selected cities which have guaranteed to continue the work for a period of at least five years. Successful clinics, with staffs including psychiatrists, psychologists, and psychiatric social workers, are now functioning in St. Louis, Mis-

souri, Norfolk, Virginia, Dallas, Texas, and most recently in Minneapolis and St. Paul. The widespread interest in other places in these demonstrations is shown by the requests that have come in from forty cities for assistance in establishing similar clinics to serve their courts and schools.

The psychologists, in the meantime, have been upsetting the pre-determined educational patterns in our school system by pointing out that children differ widely in their native ability and hence in their educational needs. There has arisen a demand for differentiated courses of study and methods, and special classes and ungraded rooms are being introduced for the subnormal and super-normal children. The State Board of Education in Wisconsin is organizing even the rural schools of the state along these lines, under the direction of Dr. Elizabeth Woods at Madison. The study of the needs of the individual child has led, moreover, to a realization of the importance of the educative influences of the home and the neighborhood in the child's life, and the desirability of coordinating these with the school room activities. The problems offered by the "non-conformist" child have brought the schools to the psychiatrists for advice, and their social investigations, such as Doctor Richards' study in Baltimore of the home conditions of a number of children presenting neurotic traits, have further pointed out the necessity for the school to concern itself in some measure with its pupil's home adjustments.

Visiting teaching or school counseling has developed in response to this need and may be considered a form of psychiatric social work. At the present time there are about one hundred and forty of these visiting teachers, in about fifty cities and counties of the United States, doing individual case work with school children who present various behavior problems. Training in this work and the establishment of demonstration centers is being carried on extensively in New York and Philadelphia as a part of the Commonwealth Fund Program in connection with the National Committee on Visiting Teachers and the Public Education Association.

The psychiatric social worker is not only coming into contact more and more with school children but also with children of pre-school age through such organizations as the Habit Clinics directed by Doctor Thom in Boston. Children under five who have been studied there were found to present many intricate and involved problems which apparently could be solved only by the combined efforts of psychiatrist, psychologist, and psychiatric social worker, striving for the healthy development of the mental aspect of the child's life. The possibilities of this period for prevention of the

fixation of undesirable personality traits are thought to be almost unlimited, and interesting educational experiments in so-called nursery schools are being developed, after the model of the Merrill Palmer School under Dr. Helen Woolley in Detroit.

Another trend of psychiatric social work is toward fields of wholesome development of normal children through recreational programs. The National Girl Scout Organization, for example, has just employed a psychiatric social worker to do educational work in mental hygiene for normal children throughout the middle west. The National Young Women's Christian Association also obtained worthwhile results in New York from a "personality clinic" giving psychiatric advice. In New Jersey, the Commonwealth Fund is conducting a preventative experiment in mental health for children by maintaining a fully organized psychiatric clinic in one county for five years. In several of the larger cities, such as Cincinnati, the mental hygiene needs of the community are being met by one central clinic serving the schools, courts, social agencies, and the general public. In all of these clinics, of course, the psychiatric social worker has an important part to play in interpreting the patient's social needs to the psychiatrist, and the psychiatrist's advice to the patient, his family, and the general social worker.

Psychiatric social work can also find many applications in the development of mental hygiene in industry. Industrial organizations have not overlooked the importance of mental factors in production, and agree that successful personnel management depends upon recognition of the variations in temperament among workers. Psychologists are developing trade tests which will be of use in the selection of employees, and psychiatrists have been placed in the health departments of some concerns and are being called upon to detect early cases of mental disease, to give suggestions for the adjustment of the psychopathic employee, to unravel the personal problems which are often at the bottom of the handicapping neuroses, and to increase the mental vigor of all the employees by education along mental hygiene lines. Dr. Augusta Scott has found little difference in the nature of psychiatric problems presented by employees of the Metropolitan Life Insurance Company in New York, where she is working, and those in any psychiatric clinic. It follows, therefore, that the training of the psychiatric social worker in the general technique of social investigation and the special technique of personal study and adjustment should render her of great value in personnel work. Psychiatric workers who have some special industrial knowledge are needed also as vocational

advisors in the schools and in the department issuing work permits to children.

Another of the commonly accepted duties of the psychiatric social worker is to contribute to medico-social research, and already enough valuable material has appeared to more than justify her claim to this function. Understanding of the possibilities for adjustment of the feeble-minded in the community, for example, has been furthered by such studies as Miss Mabel Mathews has made at Waverly of "One Hundred Institutionally Trained Male Defectives in the Community under Supervision" and by special industrial studies such as Jean MacAlpine's "Study of the Underwear Industry with Special Reference to Opportunities for Subnormal Girls." Studies of social problems connected with mental disease are also being made, and those by Mrs. Solomon, working with Dr. Harry C. Solomon, on problems related to neurosyphilis deserve special mention. Various surveys conducted by psychiatrists, psychologists and psychiatric social workers of schools, prisons, public institutions, and entire communities, may also be included in medico-social research. Not only the National Committee for Mental Hygiene but also the State Committees are carrying on such investigations and are pointing the way for new applications of psychiatric social work. The Illinois Society, at the present time, for example, is giving the daily consultant service of a psychiatric social worker to one of the districts of the United Charities in Chicago.

Thus the trends that may be seen in psychiatric social work today are manifold and no one can predict the future. We see, on the one hand, the psychiatrist coming to depend more and more upon the social worker as he is called upon to contribute his specialized scientific knowledge to the solution of social as well as medical problems, and also see the introduction of social case work by the psychiatric social worker into almost every field of social activity where the value of individualization of methods to meet differences in personality is being realized. There undoubtedly will arise some confusion as to the boundary lines of these new fields of social work. The psychiatric and the medical social worker, however, have so much in common in their training, their association with the medical profession, and their approach to social problems through health problems—whether it is physical or mental health—that in a measure the development of psychiatric social work is bound to depend upon and to contribute to the development of medical social work. Workers in both fields should have a concrete knowledge of social medicine and social psychiatry and of the trends in the public health and mental hygiene movements as well as those in social work.

Similarly, all social workers, as well as all workers in health, educational, legal and industrial fields, would profit by some knowledge of the principles of psychology and psychiatry underlying psychiatric social work.

After several announcements were made by the chairman the meeting adjourned.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin.

November 1, 1923, 2:30 p. m., Miss

Bertha W. Allen in the Chair

SMALL HOSPITAL SECTION

CHAIRMAN ALLEN: We are called the Small Hospital Section. I think you will agree with me that we are not small in numbers, we are not small in what we do for the communities in which our hospitals are located; we are small only in our daily average number of patients.

NEEDS OF A SMALL HOSPITAL

By Miss Mary E. Gladwin,

Nurses' Board, Old State Capitol, St. Paul, Minn.

The word "small" being such a relative term, it seems necessary to set a rather definite limit to the size of the hospitals under consideration. Yet one can hardly classify a hospital as "small" wholly from a study of the number of its beds, or even upon the number of patients who pass through its doors. Much depends upon the sort of work done within its walls and the average length of stay of its patients.

The institutions which make the greatest appeal to my sympathies are those administered by one or two persons, usually nurses—little places all over the country, often drawing patients from several counties, representing the only hospital service available to people of moderate means, and giving a limited service to the poor of the community. To operate successfully a hospital of this scope requires quite a special sort of ability and a very diverse set of talents. In larger institutions, the heads of departments are more or less experts and the superintendent need have only a general acquaintance with the work of each department, depending upon the head for a knowledge of details and judging the work by the results obtained. But in the little hospital, such assistants as there may be are usually in the same class with the superintendent—beginners, gaining their experience at the expense of the hospital. Many of us remember our first institutional positions, in which we officiated as superintendents, superintendent of nurses, housekeeper, record clerk, bookkeeper, operating room nurse, or anesthetist, and, in time of need, cook or furnace man. Although in this day slightly more assistance is usually given to the har-

assed superintendents of these little places the type persists, and many of us, older nurses, have forgotten that such institutions are to be found in comparatively large numbers.

At odd moments, going up and down the land, the writer has tried rather desperately to visualize all the small hospitals known to her—the little places where she has been welcomed, fed, comforted, and sent on her way with a better understanding of human needs and goodness, and, alas, sometimes of human greed and failure. The result of this attempt at visualization is a composite picture of many small hospitals in various parts of the country. In the beginning, the needs appeared countless and quite dissimilar in nature, but as the picture became clearer, two details overshadowed and dimmed all the rest. Neither of them has anything to do with the need of money, money being the easiest thing in the world to obtain for any cause in which one believes with all one's heart. It is only necessary to have an abiding faith and a capacity for hard work.

The first factor in the failure of the small hospital is the lack of understanding on the part of trustees, staffs, superintendents, and the public, that hospital administration is a business in itself for which preparation should be made and that there is no hospital problem for which somebody has not worked out a more or less successful solution. Nothing is more disastrous than to undertake work for which one has no fitness and no preparation. And yet, many of these small hospitals are run by women in whose choice the question of fitness did not enter and who are learning hospital management in the hardest way in the world—by hard experience and many failures. One thinks of the story of the renowned oculist who is reputed to have said, when complimented upon the sureness and delicacy of his touch: "I learned how to treat this eye by spoiling a bushel of eyes." Just as the young oculist of today may be taught how to treat eyes without spoiling a bushel of them, most failures in hospital administration could be avoided by adequate teaching and a little ordinary care and common sense in the selection of a superintendent.

The head of a very small hospital told me only yesterday that every one of her graduates had been asked to take an institutional position. Not one of those young women has had a day's or even an hour's preparation for the work she has undertaken. Consider what happens. A little community, or a group of physicians, suddenly realizes the need and value of hospital care for the sick; money is given, plans are made and executed, promises are made for the furnishing of rooms, the staff and trustees look about for a suitable superintendent. Often the nearest or handiest nurse

is asked to take charge, or, somebody says: "My cousin's wife's husband's niece is a nurse; perhaps she would come." It sounds like one of those fascinating relationships found in Kipling, but actually the choice is often made in just such a casual, haphazard fashion. We find many women who have had only a common school education at the head of hospitals, because the trustees do not realize that only a trained mind can cope successfully with all the intricate and delicate questions which come up in the management of any institution, however small. Not long ago, while waiting for a train in a country place, I was shown through a little hospital nearing completion. My conductor had never seen or heard of me before, knew only that I was a nurse, and yet, as we parted on the steps, exclaimed: "Would *you* consider coming here to take charge of this place?" Would not more thought and care go into the choice of an office boy?

Last week a charming nurse, looking very trim and pretty in her white graduate's uniform, worn for the first time, went proudly to begin her new work. She has very little education, graduated from an institution of twenty-five beds; has had no experience in teaching or in the employment or management of servants, no knowledge of housekeeping, bookkeeping, buying, cleaning, food values, or, in other words, of hospital economics—and yet she has very confidently accepted a position in which she is superintendent of a hospital and principal of a school, and the only official employed in the institution. It must inevitably mean endless care and anxiety to the young woman—who is honest and conscientious; actual financial loss to the hospital; uncertainty to the physician as to the result of his skill and labor; wasted time and opportunity to the pupil nurses under her, and ultimately, needless suffering and risk to the patient.

Instances without end might be cited to show how lightly great responsibility is offered and accepted. Within a month, a trustee said to me, with the utmost complacency: "The head of our hospital is just out of training school and she can afford to work cheaply while she is learning." In the end, it isn't cheap, because there is only a learner and no teacher in that isolated community.

Lately a young superintendent said: "I go every year to the hospital convention, but no subject is ever finished; they keep at it year after year, and the conclusions of one year are all upset the next year." Poor child, she little realized that that is what life and successful work mean: A constant change, progress from one opinion to another, growth marked by changing conclusions. That constitutes the joy of life—the opportunity to learn new things,

the chance to think in clearer and deeper fashion. All of which leads me to this: It is evident that many changes must come in our training of nurses. If large numbers of young women are to continue to remain three years in schools of nursing and then go directly to take charge of hospitals, the large schools must begin to offer real preparation for such work. Lord Kelvin said, long ago: "Higher education has two purposes, to teach the student how to earn a living, and to make life worth while." Let us change one word and there is no more appropriate motto for all our schools: "*Nursing* education has two purposes, to teach the student how to earn a living and to make life worth while." The living is not honestly earned unless one has the joyful consciousness of living prepared for and equal to one's work.

There is, it is apparent, a demand for electives in the administration of small hospitals. These electives should be offered by all the large schools, not only to their own pupils but to the pupils of small schools, and they should be postgraduate for young women who have already graduated. These electives should be real departments, not odd lectures tucked in here and there. The women at the head of these departments should be experienced nurses, trained teachers, and they could obtain their special preparation at a place like Teachers' College. In the interim we are hoping for the inspiring influence of more and more summer institutes. Up to this time, a great deal of the postgraduate and affiliate work has been simply a means whereby the work of the hospital could be done.

I have in mind a school which has brought the teaching of nursing procedures well nigh to perfection, every detail well thought out, accurately and precisely stated, with the most careful supervision until the pupil is letter perfect, with the result that there is no painful gap between the demonstration room and the ward practice. The classrooms are really laboratories and real research work has gone to the development of the department. That is the sort of thing we need in teaching the administration of the small hospital. There remains too much of the old Squeer's method of "learning by doing" in our world of effort. For example, pupils come from institutions where they do most of the dishwashing and cleaning, places where the authorities prate of the educational value of such work and they haven't the faintest conception of scientific cleaning. And so on along the line.

The second great difficulty is one which has been the despair and opportunity of many able people—the failure to adjust the two quite diverse functions of the hospital and the school. In many of the places to which my work takes me, the suggestion

that the school of nursing exists for a purpose quite other than the care of the sick in the hospital seems to come with quite overwhelming surprise. The unguarded statement, which usually follows any discussion that the school is in danger of losing its credit: "We couldn't have a hospital without a school," shows how complete is the lack of understanding and how absolute the dependence upon the pupil nurse.

In spite of the progress made in hospital and school affairs, it is not a unique experience to have trustees boast of the amount of money earned by pupils in nursing outside the hospital. One member of a board informed me that the board felt that the pupils of a school ought to do enough outside nursing to pay for their maintenance during the three years spent in the school. Perhaps an extreme case was that of a school which had been without a superintendent for three years out of six—not consecutive years, of course. The trustees, or rather the stockholders, wondered why that was not a good way to make money. They declared that they could see no reason why the older pupils should not teach the younger ones. No one of them seemed to realize that when the hospital door closed behind the physician, after his evening visit, the patients were entirely at the mercy of an inexperienced, untaught girl of twenty.

There are many little hospitals, with schools attached, whose sole excuse for existence is the putting of money into the pockets of the stockholders. They present a difficult problem of adjustment, one requiring infinite tact and patience. The real remedy lies in systematic and carefully planned information to the public generally together with a national system of inspection, the results of which are published—a work which includes all schools of nursing and similar to that done so successfully by the American College of Surgeons.

As one sees the multitude of small hospitals springing up everywhere, one wonders if, eventually, hospitals will consolidate as country schools have done. The consolidated hospital could furnish better and bigger laboratories, and the hope of the world is in the laboratory of the future. With good roads and a good ambulance service, such hospitals could be greater teaching centers for both physicians and nurses—in truth, teaching centers for the public, in the control and prevention of disease.

If you could see the young women who are going into schools of that kind scattered over large sections of the United States, your heart would simply ache for them, because they are the nice, fresh, wholesome country girls we are trying, everywhere, to get into our schools, and they enter these hospitals in entire ignorance

of the fact that all the teaching they receive is teaching from their own hard work and labor, and I believe this constitutes a real emergency in the small hospital.

MISS MARY E. SURBRAY: During the past year I visited 179 hospitals, at least 100 of them being hospitals of from four beds up to 100. I find the most important needs to be: 1. A board of trustees who will not only function as a financial committee, but also act as an advisory committee with the superintendent; one who will lend its aid by the appointment of a staff who will co-operate with the superintendent in giving service to the patient, who will assist in raising the standard of the hospital, building it up to the point where it will be recognized by our great leader, the American College of Surgeons. A board who will empower the superintendent with full authority to select and employ such heads of departments as will cooperate with her in selling service to the patient. A board of trustees who will support her in all of her endeavors to render the best *service to the public who may need the institution*. 2. A fully equipped institution where every facility may be provided for *diagnosis and treatment of the patient*. 3. A nursing personnel capable of following out the instructions of the physician and surgeon. In order that this may be accomplished we must have first-class schools for nurses, with capable instructors, teaching facilities, comfortable living quarters to attract the kind of women who will render such service to the patient. To summarize; first, a functioning board of directors; second, full executive force; third, adequate nursing service. I might enumerate endless needs, but these I consider the important ones.

MISS ELDREDGE: I think Miss Gladwin covered pretty well all the problems of the small hospital. She speaks very feelingly of that group of hospitals so small that they should not, through any possible excuse, run a school for nurses. One of the things we should all get into our minds when discussing a small hospital is that a small hospital, in a large city, is a hospital of 110 or 115 beds; a small hospital in the idea of the people in a State like Wisconsin and other middle western States, is a hospital anywhere from five to 25 or 50 beds. In many of our States, as here in this State, we accredit a school of nurses in a hospital of 30 beds. Of course, this should not be done, but we are meeting things as they are, not as we would like them to be.

The thing I see is that we need in every small hospital a board of trustees who find out, first, what is the right way to run a hospital, and then proceed to do it.

REV. J. LAWRENCE: I represent a little hospital that, when the building is erected, will consist of about 30 to 35 beds. As I listened to the very able paper read, the first paper, I felt that I was rather hard hit, in so far that I was asked to come and organize that hospital without knowing the least bit about hospital affairs; yet I am trying as well as I am able to, by the assistance of my helpers, to conduct the hospital as well as we can. I would like to ask this question—is it recommendable and is it necessary for a hospital of this size to have a regular medical staff? As far as we are concerned, I do not see how we can have it. Another question—can anything be done for the small hospitals in the line of urging the nurses, the graduate nurses, to come to the smaller hospitals in such small places? Permit me to state how difficult it was for me to procure one nurse for night duty. I went to three or four hospitals in the city of Milwaukee and to the registrar, without succeeding in securing a nurse, and we offered the full pay of the larger cities. I went to Chicago, and finally after two days' hard work secured a nurse. Could not that condition be improved upon in some way?

DR. E. L. COTTRELL: I have gone through the preliminary stage of which the gentleman has just spoken. I have had a great deal of trouble in getting trained nurses to take positions in our hospital, although we pay plenty of money, and I can say that the best way to secure a trained nurse is to send to the registrar of nurses in the nearest city to which he lives and state the kind of nurse you wish and the amount of money you want to pay and ask for an answer by telegraph, and generally in 48 hours you will have an answer. Another way is to send your message to the Y. W. C. A., and they will turn it over to the nurses' registrar and you will receive your answer promptly.

CHAIRMAN ALLEN: Can you also answer in regard to the staff, having a regular staff—is it recommendable for a hospital of 25 beds to have a regular medical staff?

DR. COTTRELL: I can only say that I represent an industrial institution and there are only two doctors on the staff and we are brothers and work together. That brings up the question, how can you arrange a hospital of 25 or 30 beds, possibly 40 beds, so that you can have that hospital recognized? I believe the proper way to do that is to elect your staff and make it a closed staff. I cannot conceive that you can have a staff in which any doctor can come in and operate; you must have control of your hospital staff, and by doing so you can eliminate a certain line of work which would go on in that hospital if you did not have absolute control.

DR. F. P. MILLER: I want to say a word in behalf of the doctors who work on staffs. Now, folks, they are just as human as anybody else; they have the same desires and ambitions that other people have; they have the same faults and foibles that other people have. You must look for the good in each of those men that you are trying to get on your staff and overlook a whole lot of the evil, or else you are going to come to think just like many do, that all doctors are bad; except perhaps your own private physicians. You must be kind and courteous and charitable in the construction of the motives of doctors and teach them to be afraid of the mighty consequences of prejudice and passion.

The dangers as to the attitude towards the minimum standard for hospitals in small hospitals or in new hospitals organizing a staff, are three; the first is apathy; they are apathetic about the plan, it is something new to them. Indifference is another one of the enemies, they are a little bit indifferent about it and the effort required by the plan; and above all, they are selfish. All doctors are selfish about some things. There are many of the faults that you see in doctors that they cannot help or cure. Some of them are just small cowards, but is it their fault that they are not brave? A hospital board of trustees or managers can get just what they want out of any group of doctors. I refuse to believe that there is any group of doctors in any community that will not come up to the minimum standard of hospital requirements on a small staff, if it is properly presented to them and if its provisions are required of them in a firm manner.

MISS MARY GLADWIN: It is quite evident that I have not made my point clear, and I must make it clear before I go. There is in this country today a real emergency in nursing affairs; there are hundreds and hundreds of young women graduating from schools of nursing who are going out to manage hospitals and training schools for themselves, and who have not had one particle of preparation for the work they are doing. During the war, and in the years that have followed the war, the number of small hospitals has increased by leaps and bounds, and nearly all of those small places have training schools. I see it, of course, from the point of view of the nurse and of the patient. The places are not bad; they will provide, in most instances, very good living quarters, and will give a decent salary to the right sort of woman. There is a tremendous demand for superintendents of small hospitals, and we are making no adequate effort to supply it. That is where the emergency lies. We are doing ourselves and the nursing profession, and the hospital world in general, a great injury because we are neglecting it. We have made vast strides in the last ten

or twenty years; our central schools and university affiliations are assured facts; but down underneath there is something that needs immediate attention from everybody who thinks. These questions about the staff, and training school committees, and matters of that sort which keep coming up every day, would be much easier of solution if we could send into the institution a woman who had a little training for the work she had to do. All nurses should have a fundamental training; but surely we have come to the time when we must do more specialization—we must prepare many young women for good positions in these little places—and what really good work we can do. The small hospital has come, and has come to stay, and in the next ten years there will be more, and we should prepare nurses in large numbers to take charge of them. Surely this is of vital interest to everyone who desires to render service to those who suffer.

WHAT CONSTITUTES GOOD SERVICE TO THE PATIENTS

Minnie Goodnow, R. N.

Superintendent of Nurses, Children's Hospital, Washington, D. C.

In these days, when hospitals are no longer mainly charitable institutions but are so largely devoted to patients who wholly or partly pay for their care, the management of a hospital comes to resemble that of a hotel. Less and less do we devote ourselves to giving succor to the unlucky poor, and more and more adjust our practice to supplying the wants of the man who expects to pay for what he gets.

What, then, should the patient and his family expect of us? What are his legitimate demands upon the hospital?

Doubtless all will agree that the patient has a right to expect—to demand—three things: 1. *Safety*. 2. *Comfort*. 3. A certain amount of *consideration* for his whims.

Safety should be axiomatic. (1) It means proper buildings, and sufficient precautions against fire. (2) It means competent physicians and surgeons on the attending staff and on the house staff. (3) It means a sufficient personnel to meet all emergencies.

Comfort means (1) Good beds. (2) Pleasant rooms or wards, kept at a proper temperature. (3) Good food, properly served. (4) Reasonable freedom from noise. (5) Competent doctors and nurses in sufficient numbers to give prompt attention.

Consideration means courtesy from executives and employees.

Safety. No hospital can justify its existence as a life-saving institution if its buildings are not safe against fire, provided with

sufficient and easily accessible exits, and with enough fire extinguishers or a sprinkler system. A monthly or bi-monthly fire drill should be an absolute requirement.

The staff doctors should be competent and ethical. This also should be axiomatic. No hospital can afford to admit to its privileges doctors of less than the accepted standard. A recent court decision maintains that even in an "open" hospital, the board has a right to discriminate against doctors if it deems them undesirable. Any patient who enters our doors in reasonably good physical condition has a right—except in very unusual circumstances—to go out as well if not better than he came in. It is the business of the hospital to see that such is the outcome.

A sufficient number of good interns is not an easy thing to provide, depending, as it often does, upon chance. How to regulate the law of supply and demand, what should be the length of service, the salary, etc., are matters which might well be given more study by this Association.

For the nursing work of the hospital, the question is at present largely a matter of money, since there appears to be no shortage of either graduates or students. The problem of housekeeping duties which are so often assigned to nurses *can* be met by the use of extra maids or ward helpers. Whether or not it is met in this way depends upon the opinion of the hospital board as to what constitutes service to the patient.

Comfort. Pleasant rooms mean that the hospital must be properly located and correctly built, well furnished and well kept up. The board and the superintendent must cooperate to secure these conditions.

Proper heating and ventilation mean correct construction, and a sufficient and well managed heating plant. It means control of heat in winter and provision for air-cooling in summer, or at least electric fans. It means more heat at night than is usually provided. (The writer has never been able to see why patients need be overheated in the afternoon and cold at night, nor why a night nurse should be required to heat water in a teakettle.)

From *the patient's standpoint*, the criticisms which are made of hospitals are about as follows:

First, and chief: The food was not satisfactory.

Second: The hospital was noisy.

Third (if the patient did not have a special nurse): His calls were not promptly answered.

Fourth: He was wakened for his toilet too early in the morning.

Fifth: There were too many different nurses caring for him.

These five complaints are perhaps the most common ones, and comprehend a very large percentage of the criticisms of hospitals. Who shall say that they are not legitimate and reasonable? They are worth considering somewhat in detail.

Food. Patients find food unsatisfactory because (a) it was not hot, or not cold; (b) it was not what he liked; (c) (less frequently) it was not attractively served.

It must be conceded that among well people, as well as the sick, complaints about food are extremely common. We seem always to be expecting something which we do not get, and something which we find it hard to define. Experiments have been made with interns and nurses who complained about food; they were asked to plan their own menus, being allowed anything within reason; the invariable result was that after a week they ordered almost exactly what had formerly been served them, and in two weeks were tired of it and dropped both the planning and the complaints.

The fact is that what most people want is the sort of food prepared in the way they are accustomed to at home, and that anything else is unsatisfactory. It is not uncommon to find a sick person delighted with some dish brought in by a relative, when to hospital people it seems badly made, unappetizing or even unwholesome. Admitting that we cannot supply the patient with his particular brand of home cooking, we can at least copy the methods of good hotels and restaurants. We can employ at least one good cook, to whom we pay a salary sufficient to secure permanence. We can have a dietitian who is competent to plan balanced diets and attractive menus, and who supervises the cooking enough to get results.

If hot food is to arrive hot and cold food cold, there must be proper equipment. The right sort of food containers, insulated against change in temperature (because reheating spoils flavor to some extent), good transportation and proper serving are necessary. The portable steam table, heated by electricity, soapstone slabs or other means, and brought to the bedside or room door, appears to be the best means of giving good food service. Patients like to see and choose; portions may be served large or small as taste and appetite dictate. The first cost may seem large, but hospitals who use this method report a very material saving in food, which soon pays for the equipment.

A few hospitals meet their problem by sending to private patients a menu for the following day and asking them to order ahead. Others give a choice of two meats, two vegetables, etc., supplying according to the laws of probability, as restaurants do.

Dainty service means (1) attractive china and spotless linen, and (2) personal care and attention on the part of the one who serves. The first cost of good china, the bills for breakage and the difficulties of laundry are well known to us all. Thin Syracuse or Greenwood china of a plain stock pattern, a few silver pieces inventoried often enough to prevent theft, and the use of the better grade of paper tray cloths and napkins will help to secure daintiness. Personal attention can only be secured by the selection of the right sort of maids, and the constant admonition of nurses.

The whole matter of food is one of the things which can never be trusted to run itself, but must be supervised unremittingly.

Noise, especially noise which seems unnecessary, is one of the patient's chief grievances. He feels entitled to quiet. He will put up with a reasonable amount of noise if he thinks it cannot be helped, and if it is of short duration. Otherwise, he complains.

The control of noise is, unfortunately, very largely a matter of location of buildings and of construction. Street noises may be reduced by "Quiet Zone" signs and cooperation by the police; but the original location of the hospital, or a change in the character of the neighborhood, may be the chief factors, and these are beyond control. Inside the building, much more can be done. Elevators and stairways should be enclosed, as these are one of the chief sources of complaint. Closing off one end of a corridor often helps materially. The location of utility rooms and of plumbing is all important. Nurses' stations, especially on private floors, should be in a room or enclosure, so that doctors' consultations and the chattering of special nurses may not penetrate to the patients. Dripping faucets, running tanks and banging doors are matters of upkeep, and should be taken care of by weekly rounds by a competent utility man.

The complaint of *calls not being promptly answered* is usually met by supplying special nurses. In many cases this is necessary or desirable; in others, it is an unwarranted expense. One excellent hospital, using only graduate nurses, allows a nurse for two patients in daytime and one to five patients at night. No hospital which cares for acute cases should have less than one nurse to three private patients, and one to four or five ward cases. If this number is actually maintained in daytime and one nurse for six to twelve patients supplied at night, there should be little cause for criticism. The business world has discovered that people do not wait patiently longer than four minutes; with sick people, who have less to distract them, three minutes is probably nearer the limit. It is almost entirely a matter of sufficient personnel, properly

distributed. Insufficient help seems to the patient inexcusable, and probably is. Except during epidemics, it is an open question whether a hospital has a moral right to accept more patients than it can properly care for. Paying patients should not be expected to put up with the amount and quality of service accorded to charity wards; yet that is exactly what many hospitals are supplying. If a hospital needs reorganizing in order to secure sufficient care, by all means reorganize.

There is less excuse for insufficient nurse service than formerly: (1) Because patients have grown accustomed to paying higher charges; (2) Because student nurses are somewhat easier to get; and (3) because ward helpers can be secured.

Under this head also comes the common complaint of being awakened too early in the morning. There are two remedies for this: (1) To transfer some of the night nurse's duties to the day schedule; (2) to give the night nurse help when she needs it. One hospital manages the extra help by leaving it to the discretion of the night supervisor; when she finds that any given ward needs help at any hour of the early morning, she has carte blanche to send for the youngest nurse assigned to that ward; this young nurse can take the routine duties, leaving the floor nurse free for the more important tasks; even probationers can thus be utilized, and will gain valuable experience. Nurses as a rule do not dislike the plan, as it merely makes their day begin earlier and end earlier. The day's problems may be met in similar fashion—by getting away from the old-fashioned set hours for duty, and maintaining a more flexible schedule. There is a tradition among superintendents that eight-hour duty should be, as far as possible, an unbroken stretch of time, or at least arranged in two four-hour periods. Student nurses do not share this tradition, but are glad of "broken," even irregular hours, to rest, run downtown—or possibly to study! There is no real argument against concentrating nurses, even if it does spoil the schedule.

The complaint that *too many nurses care for one patient* is a very pertinent one. It is a just cause of annoyance if a patient is cared for by six different nurses in one day; and one excuses the doctor who complains that he cannot get a complete account of how his patient has been, because every nurse on that floor seemed to be just going off or just coming on duty. So long as we maintain an eight-hour day, there seems no remedy; and the eight-hour day has apparently come to stay. Careful and full records and proper cooperation lessen the difficulty; but, for patients who are especially sensitive in this matter, a special nurse seems to be a necessity.

Much of the criticism of hospitals is a matter of *psychology*, pure and simple. That intangible something called "atmosphere" is often the thing upon which success or failure depends, more than upon equipment or number of personnel. The superintendent who can create and maintain in his hospital a feeling of friendliness and of service is going to find his hospital popular.

The "atmosphere" of a hospital emanates from the front office. The attitude of the superintendent and the superintendent of nurses will always be reflected in the employees, down to the last and lowest hireling. If a superintendent looks upon patients chiefly as clinical material or sources of income, and the superintendent of nurses considers them animated Chase dolls or troublesome problems, it is a foregone conclusion that interns, nurses, clerks and servants will agree with them and act accordingly. If, on the other hand, the executives inculcate by precept and example the idea that patients and their friends are *guests* of the institution, the whole atmosphere changes, and the patient may not notice the lack of equipment, may wait more patiently for an answer to his signal, or even overlook mistakes, and go home singing the praises of those who helped him back to health.

Watch the working of the popular hotel. The keynote of the place is *service*. It is paid service, true, but the public gets its money's worth. Why should not a hospital render satisfactory paid service as well as an institution which is organized primarily for money-making?

Watch the successful shop. It renders service, and the public pays. It is popular if the public gets its money's worth in quality, promptness and courtesy. The motto of the good salesman, "The customer is always right," could be used to advantage in hospital life.

Salesmen study psychology. Advertisers study psychology. Why not hospital executives and nurses, who deal with human beings at their most sensitive time? Of what avail is a well organized office, if a careless mannered clerk or an impatient telephone operator antagonizes the patient's friends? To what end is a well conducted training school if a nurse's discourtesy "riles" the family, or her tactlessness hurts the patient's feelings? If you cannot succeed in making nine-tenths of your patients satisfied or enthusiastic, you must admit that you and your hospital have failed.

Getting the patient's viewpoint is the key to success. This is not easy, but must be striven for. The Golden Rule is ideal, but is not workable without imagination. It is not easy for an overworked executive or nurse to think how it might feel to lie staring at four walls for twenty-four hours a day. A hurried

clerk does not always realize the apprehension of the new patient who has for the past ten weeks been screwing up his courage to enter the hospital door. Only a constant iteration of "How would you like it yourself?" "Do unto others —," constant reminding that all comers are guests, and that courtesy always pays, and above all the example of the executives, can assure us of being able to render satisfactory service to the stranger within our gates.

To summarize: Study the patient's psychology. Provide proper and sufficient equipment. Arrange utilities so as to be accessible. Eliminate noise so far as possible. Provide enough help at the right times. Treat the patient and his friends as your guests. And again, study the patient's psychology.

Miss Marietta D. Barnaby:

It is most interesting and rather comforting to note that the criticisms of hospitals, from whatever section of the country they come, are along similar lines, showing that sick people everywhere are much the same, and also that the weak points in our hospitals are much the same. I feel very strongly that one of the most justifiable of complaints is that of too many nurses caring for one patient, and a complaint that can be overcome by sufficient thought and care in planning relief. In this connection I recall something I heard a long time ago when I was a young nurse in a private hospital near Boston. This hospital was then considered the finest of its kind and it provided its nursing service by maintaining affiliations with some of the prominent training schools in Boston and vicinity. The patient in question was the Dean of a well known college for women, and on a particular morning I was detailed to relieve her nurse while off duty. During my time with her she said that her physician during his visit that morning had asked her what criticism she had to make of that hospital, saying he was one of the trustees and would be glad to hear her opinion. She said the only criticism she had to make was that too many nurses took care of one patient; that on a certain day, for instance, she had had four nurses, everyone from a different training school and everyone with different methods. I remember she told me that it tired her very much trying to tell each one what they had to do and how they were to do it. Another complaint that I think we all need to give attention to is that of a patient being awakened too early for the morning toilet, but I realize there are great difficulties in the way of the accomplishment of this and I have no suggestion to offer other than those Miss Goodnow has given us, but I hope that in the discussion which will follow someone may tell us something which will be practical and workable. I feel that we cannot, any of us, study too much the psychology of our patients;

it is so true that upon that intangible something called atmosphere, our success or failure very largely depends. It is so far-reaching in its effects, too, for its influence is felt far beyond the confines of the hospital walls, and that most powerful tell tale, the voice and manner of the telephone operator, might be considered the advance guard. Now I realize that there are very many of us who are not able to provide all of the modern equipment of which Miss Goodnow speaks, nor the intern service, nor the many desirable adjuncts we would all like to give to our patients if we possibly could; but I feel that we can and should make every effort to produce that atmosphere which means in the beginning a contented personnel and which shows itself in friendliness, cooperation, and continued unvarying courtesy to everybody concerned.

COMMUNITY WORK FOR THE SMALL HOSPITAL

By Miss Mary A. Baker,

Superintendent, Henry W. Putnam Hospital, Bennington, Vermont

So many stimulating and constructive papers have been written by experts in the hospital field on the place of a small hospital in the community that it seems superfluous for me to add to their number. But the request, not to say demand, for an article seemed impossible to side step and so I submit my contribution to this tremendously interesting subject.

It is quite simple to advocate the adoption of a program for a definite piece of work covering a local field; yet the temptation to be didactic and aggressive in outlining methods must be avoided if a general discussion of this question is not to become almost controversial. For in spite of the obviousness of many of the ideas presented in the literature on the subject, difficulties of administration at once present themselves to the experienced hospital executive for whose adoption the programs are outlined. Very rarely indeed does the community work of a small hospital develop to the point of smooth cooperation without much previous rough sailing.

It will therefore be my purpose not so much to outline a definite program for community work as to consider those modifying factors which will always influence the successful operation of any program.

The hospital as we know it today seems to bear a very complex relationship to the lives of the people in its neighborhood—more complex perhaps than even the school or the church. Yet we must not lose sight of its fundamental purpose. Into its walls, given time, will come in any community large or small the rich and

poor, the learned and ignorant, the foreign and native, the normal and afflicted. But they will all come with one definite need—to be helped physically or mentally. They come, as mankind has always come to a healing spring, a pool, a river or a shrine. Where once they found a priest or priestess, a prophet or a saint, they now find a doctor and a nurse. Over how wide a field can the hospital effectively extend its influence? The answer to this query will depend on many things.

First, on the group of men and women who organize and direct the hospital administration, their form of organization, their degree of control, their aim and vision. In nearly every kind of hospital the directors or incorporators or trustees, by whatever name the controlling group is called, can be depended upon to produce one at least of their number who can be counted among the righteous to advocate or inaugurate some plan to make a local hospital exercise an influence for health outside hospital walls. In this way only can it properly function as a modern hospital.

The location of the building has everything to do with the hospital's ability to concentrate on any community expansion. Inaccessible town hospitals are a mistake, in spite of many clear advantages in the way of country surroundings. In remote towns and villages the matter of poor roads, mountains, bridges and lack of sidewalks is a serious handicap. Given an accessible location the county, school, Red Cross, and industrial nurses can feed a fairly effective out-patient department, provided good cooperation can be secured from the local doctors.

The architectural possibilities of the hospital have a very direct bearing upon the successful operation of a dispensary or clinic. If the architectural picture admits of only curative work, and if there is no working plan for preventive community teaching for either local doctors, nurses or patients, the hospital is, of course, a failure to that extent. Many hospitals are helpless just here—that when a need is felt and an opportunity recognized for clinic or dispensary expansion the place to carry on cannot be found.

Obviously the degree of intelligence of the community will largely determine the program and modify methods. In large cities the public has been successfully educated to the advantages of a hospital. In rural districts, on the contrary, the smaller hospital must camp itself upon the consciousness of the country people by creating definite contact points. Whether county, general or private in kind it must effect a perfect coordination between itself and all existing groups which are working toward health betterment—an old dream but never a more actual need than now.

In my judgment, any hospital is the loser in community influence which has no dispensary organization, which has let baby clinics perfect an organization outside of the hospital building or which has its state anti-tuberculosis clinics held elsewhere.

Not less important than the general intelligence is the conomic status of the community in which the hospital endeavors to extend its influence. If the people are poor because of strikes, industrial depression, crop failures, etc., the hospital may find itself compelled to abandon admirable work through inability to secure able propagandists. The people are too poor, ignorant and fatigued to walk to a hospital for a well baby or prenatal clinic or for an infant feeding demonstration or tuberculosis examination. Generally hospitals in such communities are lacking not only in sufficient income, but good professional men. They give poor laboratory service and dull nursing care. They are depressed, and lack vitality to create the demand for or to secure community co-operation.

Again, unless the hospital sells good service in its out-patient as well as its other departments, it should not, and will not, be encouraged by the community to expand along these lines. In but a few years in a small community a large part of the population will have a personal verdict to give as to the type of service offered by the hospital. Therefore its standards of courtesy, cleanliness and efficiency of both workers and apparatus should be of the highest, and it should be prompt to ally itself with other hospitals which can supply to its patients such special treatment as it is itself unable to give. The type of professional service that is available will either make or break an out-patient or social service department, and this is especially true of the small country hospital. Generally neither its organization nor its traditions are strong enough to combat indifferent service.

But dispensaries, social service, a dietitian whose importance is felt in her teaching of therapeutic food values, a laboratory that is competently handled, an X-ray operator plus a capable interpreter, quarters and equipment reasonably practical, privacy when needed, professional men of fine type, nursing, servants, records—all these cost money. Where shall it come from? The responsibility for securing funds should be definitely placed with a group of interested business men, for business men always seem able to get money together for anything they really want. But no work should be undertaken for which sufficient funds are not available to carry on efficiently.

No successful community work can be built up without the corner stone of the interest of local doctors. Once the need has

been shown and their approval won, they will almost certainly by cooperation and organization develop tuberculosis, venereal, prenatal, medical, surgical, orthopedic or baby clinics. In our present era of industrial activity, when there is apparently work for all who are willing to work, the necessity for the establishment of small free dispensaries has become a nice question. Undoubtedly they do save money for the hospital by shortening the stay of patients in the wards.

But too much emphasis cannot be laid on securing the loyal cooperation of local doctors and lessening the number of those who have a strong conviction that a hospital's responsibility is ended when a satisfied patient is discharged cured. The intense individualism of some sections and persons complicates dispensary expansion greatly. This attitude can only be dissipated by time and a different slant in social vision.

The nurses graduated from small schools are potential sources of an enormous influence for securing community respect for the hospital. Their character and efficiency are perhaps the largest gift the hospital has to bestow. Their work, their guardianship of the "unruly member," their consistent practicing of the hygiene they preach, go far in a country village to enhance the prestige of their hospital and to secure cooperation, good will and financial support for it.

There can be no community work worthy of the name unless the community itself is alive to the existence, needs and advantages of its hospital. In other words, it is quite as important that the community serve the hospital as that the hospital serve the community. Only an institution for which we work holds any interest for us. The hospital provides work for everyone willing to work in any community. It develops a certain degree of consciousness of the needs of the group as a whole, which is the basis of a community spirit. A hospital always needs money, clothing, foods, etc. The children's ward needs just what any sick child needs. Patients need skilful nursing care, but often they need, just as much, amusement, books, phonographs, radio, toys; and many times they do not get them. There is always a need of special apparatus, air mattresses, baking machines, endless X-ray improvements, radium, a relieving clerk, a teacher, a beautiful garden or pool, married nurses who will take emergency calls, and other things without end.

Opportunity to work for the hospital in these ways is a gift to any community and is quite distinct from the pernicious meddling in the business of the trained workers of the institution which so often goes under the name of "service" to the hospital.

To sum up, then—any program which aims to extend the influence of the small hospital throughout the community will depend for its success upon:

1. The organization and vision of the group of men and women who direct its administration.
2. The accessibility of the hospital to the community which it is to serve.
3. The architectural possibilities of the hospital as affecting the operation of a dispensary, clinic, social service department and so on.
4. The degree of intelligence and cooperation of the community.
5. The economic classes for whose use the hospital is maintained.
6. The type of professional service, including men and things, available for teaching and prevention as well as for curative work.
7. The endowment, special funds or income available to carry on obvious work needed in a particular hospital.
8. The hearty, loyal and intelligent cooperation of the physicians whose patients are cared for and whose lack of interest and approval has many times made apparently necessary plans for community work impossible of achievement.
9. The impression made upon the public by the nurses graduated from the hospital.
10. The extent to which, through personal service to the institution, the community can be brought to a consciousness of the ideals, the needs and the possibilities for growth in their hospital.

Everyone who is attending this conference is alive to the responsibility of the hospital in the community, but it would seem that there is a great and growing need to educate the rural communities to a realization of their responsibility for public health. I thoroughly believe that one outstanding feature in the program of the small community is the development of an active health center with the hospital as the unit, thereby coordinating all of the agencies functioning for health. In States where large sections are rural in character, these health centers might be linked with the State university by meeting certain standards and by submitting to a definite amount of supervision. Some of the members of the American Legion returning from San Francisco spoke of the Iowa delegation as "those people who made the big noise." Now, as legionnaires we may have succeeded in making a big noise, but as makers of health centers we have not as yet made ourselves heard.

Iowa *does* have the necessary legislation for the development of such centers, but a policy of watchful waiting is being maintained until the farmer recovers from his land poverty. However, if the people of a community have expressed the desire for a hospital and have taxed themselves for the establishment and maintenance of such an institution, are they not to at least be shown in how many ways the hospital can function for them and how its usefulness will be broadened when it functions as the unit of a real health center?

MISS GARRISON: One of the compensations of the small hospital is the fact that it gets near the people. Some of us in Iowa are working for clinics, and we are taking our public health exhibition to the County Fair. This is the third year that a county hospital created under the County law of Iowa has taken an exhibition to the County Fair and it received more attention than anything else there. We have built up in our rural community an interest in public health matters, so much so that the Fair is sending for us and, we hope, is going to make a building for us next year.

Another way we can take our public health interest to the community is by making public health exhibitions in store windows. Sometimes we look around and say "Does it really count? Is all this work worth while?" It does count, because we get next to the people in a way that is simply incredible. We find a lot of families which are tuberculous. We find places that need touching up with our county nurse work. We find what the visiting nurses need, and place it before the people in a way that our general hospital has not done. Our county hospital is not doing enough, generally speaking. Sometimes we can do more with our county institutions than we are doing. Some of us have a large recreation room. Some of us have moving picture machines. Sometimes we can give a public health program to the community and introduce them first hand to the institution which has so often been called a place one is afraid to visit. We are trying to remove the prejudice against county hospitals, trying to give high grade service and trying to make people know that it is a good place to go. We find that our public health activities in the form of an exhibition is one of the best ways to get into cooperation with our county nurse and visiting nurse work. It is building up a public sentiment which will bring us to the attention of those who are unaware of the value of public health clinics; it is building up a public health point of view that is going to bring the clinics to the county.

MISS MARGARET CUMMING: The title of my subject is rather misleading, "Visiting Hospitals in Europe." I did not visit hospitals in Europe. The only one I visited was St. Bartholomew's

in London. When I had arranged to go on this trip one of the things I solemnly promised myself I would not do, was to look at a hospital, inside or out. A few days before sailing Mr. Bacon asked that I carry the greetings of the American Hospital Association to St. Bartholomew's Hospital, London, on their 800th anniversary. As the celebration of this 800th anniversary has been so well told in Dr. Goldwater's paper, there is nothing for me to say only of the very courteous reception I received from the officials of St. Bartholomew's and their appreciation of the interest of the American Hospital Association. The Secretary of the Hospital Council came to my hotel and talked hospital and hospital association matters with me for nearly two hours.

When I was sailing from Ha-lo to Honolulu I asked the Commissioner of Health what hospital I was to see in Honolulu and he said "Not any, they are not worth seeing; you will be terribly disappointed. Come back in three years' time—we will have something to show you." The hospitals in Yokohama that I visited I understand are now a complete mass of ruins. I visited the U. S. Naval Hospital and the British Naval Hospital. Those hospitals were very modern and well kept and fine hospitals in every way. The Yokohama Hospital, a small hospital of 30 beds, was particularly attractive. A new matron had come there. The title of matron in place of superintendent is used in all those hospitals because they are in charge of English women. She was having a great deal of trouble, but she just put her shoulder to the wheel and said she was going to dig out the hospital and put it on a business basis or give it up. The private rooms were especially attractive; the wards were also, and all the hospitals through there had a small house for the matron and the matron's assistant, and those houses are most attractive. They are entirely isolated from the hospital, and she is practically in her own home, and they were all very comfortable and neat. The nurses' quarters at the U. S. Naval Hospital were very comfortable and attractive. Miss King was the chief nurse. I went to the Municipal Hospital about 10 or 12 miles out of the city and found a very modern building of brick and white stone surrounded by a very attractive garden, nice stone walls and a porter's lodge. We started for a visit of the hospital, which was very clean. The kitchen was a small room about 12 feet square. The Japanese live mostly on rice and fish, so they do not need a great deal of kitchen equipment. They had a good sterilizing plant and a laboratory and a room for nose and throat work, and did a great deal of good work and were very courteous in showing me everything there was to be seen.

On the following Monday afternoon two nurses from the U. S. Naval Hospital and myself went to the Yokohama City Hospital,

a very large building on top of a high hill, having 600 or more beds. I do not know if any of this audience has ever been in Japan or knows anything about the hospitals there, but they told me the poor people brought their own bedding, food and fuel, there was nothing provided by the hospital except the nursing and medicine. A very courteous young man, who was an intern, took us through the hospital and we found out for ourselves as much as we possibly could. They had 200 nurses in training. I do not think it would be very nice of me to pass unpleasant remarks about the hospital when they were so very courteous to me, but the hospital was very badly kept; it looked like a building that had been out of use for a good many years and was not very modern. Since that time it has been totally destroyed. Their operating room equipment was fairly good; they were ready for an operation; the surgeon had his street clothes on and an apron and was waiting for the patient to come in. Seven nurses were in the operating room.

I want to say something about the Japanese nurses. I saw nurses in large hospitals in Japan in their bare feet scrubbing the stairs and washing the sidewalk, and they were doing it with a smile and not thinking they were being punished at all. There is no modern equipment in the Yokohama Hospital of any kind. It looked as if it needed it badly.

The next hospital we saw was the International Hospital at Kobe. That was a small institution, about 35 beds. The superintendent and her assistant were both English women who had been there for a great many years. It was very comfortable and neat and well kept, and I carried several things home from both of those hospitals that I can use to great benefit in my own.

The next hospital we saw of any importance was in Hong Kong. There are some very fine hospitals in Hong Kong, but we had time to visit only one. This was a large institution surrounded by beautiful gardens and connected with it was a very large orphanage, where they have 200 children all the time. The superintendent, Sister Pauline, was very courteous; took us through the hospital herself. Their employed nurses come from the Philippines.

The next hospital we saw was the Philippine General. I wish I had time to tell you something about it. It's wonderful, I think, what those people have done in the few years they have been working—the work they are doing and the successful training schools they have and the way they are conducting them. The hospital there is particularly well adapted for teaching purposes. There

is a mixed service of 10,000 patients a year, including almost every class.

We visited hospitals in Singapore and Calcutta. We found them all well equipped; the technique probably was not as up to date as ours. The hospitals are all under the management of English matrons, and Englishmen as surgeons, either native Englishmen or Englishmen born in that country. They are not well paid, neither the matrons, nurses or surgeons. We found a great many interesting conditions in diseases that I haven't time to tell you about.

In Cairo, in a large Egyptian hospital of 650 beds, they told me they had as many patients on the floor sometimes as in the beds. They have a great many dog bites in the summer. They had a number of large tents in the courtyard to take care of those dog bites; and they get many cases bitten by camels, which are very vicious. Everyone in Egypt knows about the flies, that they have a great many eye conditions. The maternity ward there was very interesting, and there were many interesting things connected with it. They marry young in Egypt and many young girls of eight, nine and ten years of age are mothers. The infant mortality there is very high due to there being so many midwives, and they are brought to the hospital only as a last resort. Glycoma is very prevalent and there is a great deal of blindness; it is not unusual to see young children led around through the streets blind, all due to the number of flies. The Egyptian doesn't pay any attention to a fly; he may have a half dozen in the corner of his eye, and he doesn't pay any attention to them; the flies are so thick about everybody that you have to have a whisk to keep them away, continually. That is one reason there is so much eye infection.

I found the people in several places very much interested in Hospital Day, especially in Cairo and Hong Kong, and they wanted to know who was helping us in this country and I explained it the best way I could and referred them to Mr. Foley. The equipment in the hospitals there is modern. I saw Simmons beds, Faultless furniture and American sterilizers, though they are not as well equipped as we are, but they have some very good and modern equipment.

In one hospital we were in, when we asked them if there was a plague there, they said they were never without the plague, and on the streets, in any city in the Orient, we would meet cases of smallpox, syphilis and leprosy. There are many lepers, and they run around on the street. In one hospital we visited we asked the doctor in charge if he had nothing more interesting to show

us than herniotomies and appendectomies—we had those at home. He said yes, he would take us to the women's ward and show us what he was sure we never saw at home. He asked the nurse to remove the dressings from the face of the patient, which was greatly disfigured. On asking why this disfigurement, he said when the Indian got jealous of his wife he bit off her nose, that it was not unusual for them to have several such cases in the hospital at one time.

Meeting adjourned.

THE AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, November 1, 1923, 8:00 P. M., President Bacon in the Chair

GENERAL SESSION

PRESIDENT BACON: Some of our speakers of the evening have to catch the early train for Chicago, so we will change the program a little on that account.

WHAT CAN THE HOSPITAL DO TO PREVENT AND RELIEVE HEART DISEASE?

By James B. Herrick, M. D., Chicago

I have been asked by your president to tell what the hospital may do for the patient with heart disease. I shall speak only upon some of the outstanding features of the topic, and I realize that my paper is sketchy and discursive in character and lacking in the comprehensiveness that the importance of the subject warrants.

I call your attention to six ways in which the hospital may help these sufferers:

1. It may treat in the best possible manner the diseases that are known to be frequent causes of acute inflammation of the heart. Chief among these are acute rheumatism, chorea, tonsillitis, rheumatic purpura and to a minor degree most other acute infections. I would include here, also, syphilis. For, while not causing typically acute changes in the heart, syphilis is a prolific source of many heart conditions, the process generally beginning in the first part of the aorta and spreading to the adjacent heart valves and coronary arteries. The most approved treatment of rheumatism or chorea, including a maximum of rest, may perhaps ward off an involvement of the heart. The removal of diseased tonsils or adenoids—not the indiscriminate, but the judicious, removal—may prevent carditis. And early an intensive treatment of syphilis, such as is practiced today in some of the special clinics in dispensaries and hospitals, will surely lessen the number of patients who will later come to us for luetic aortitis, aortic aneurysm, aortic regurgitation, angina pectoris. The hospital, therefore, by seeing that all these diseases are appropriately handled, is engaged in the work of preventive medicine which is the most advanced type of medical therapy.

2. The hospital may help the cardiac by permitting or insisting upon prolonged rest during and after an acute inflammation of the heart. How much is accomplished in an individual case in a curative way, or how much in the way of preventing the development of

valvular or muscular lesions, it is impossible to say. But the more experience one has with this type of case the more is one impressed by the fact that permitting a patient to leave the bed too soon after an acute rheumatism or chorea, when there are signs of even slight heart involvement, is a blunder. The joint pains, fever and other distressing symptoms may have disappeared; but if there is marked anemia, rapid, irritable or irregular heart, increase in size of the heart, the physician must regard his patient as still ill and must feel that the task of bringing the heart closer to the normal in anatomic structure and in function is not yet performed. This he aims to do chiefly by prolonging the period of physical inactivity. The hospital, and the physician as well, are sometimes too eager to have a rapid turn-over so as to utilize the beds for as many acute cases as possible, with the result that a cardiac patient of this type is discharged as cured or at least as convalescent when the job is only half done and when the heart under the stress of undue activity at home may be much more seriously damaged. A few more days or weeks in bed frequently insure against an early breakdown of the heart. The way in which the hearts of children, especially, will stand violent acute inflammation of all the heart structures—pericardium, myocardium, endocardium—and come through in fair shape if only proper management be carried out, with the emphasis on prolonged rest, is a never failing source of surprise to me and is my warrant for urging physicians and hospital authorities not to be in too big a hurry to get rid of the cardiac, convalescing from such a disease.

3. A large proportion of the hospital patients with heart disease is made up of those who, with long-standing lesions, have finally suffered a breakdown—broken compensation it is often called, or heart failure. The muscle and other structures of the heart, seriously handicapped by the organic disease they are obliged to carry, have finally become unable to stand the strain of the work demanded and suddenly or gradually symptoms and signs of fatigue have made their appearance. You are familiar with the picture. The man comes in puffing for breath, cyanotic, with dropsy of legs and abdomen, disordered stomach, with a rapid, weak, perhaps irregular heart. He remains in bed, is given digitalis, laxatives and other remedies, and very often materially improves. In a few weeks or even a few days he is regarded as ready for discharge. He is sent home, usually too soon returns to work and in a few weeks is back in the ward with the same distressing symptoms. But this time improvement is slower in making its appearance, or perhaps improvement never comes.

How can the hospital help the patient of this class more efficiently than it is now doing? Briefly, by urging a longer period of rest. Reinvigoration of a tired heart muscle is seldom brought about

by a rest of a few days only. It usually takes weeks or months. Digitalis, also, should be continued for a longer time than is the practice of many doctors. Both these functions—the prescribing of rest and digitalis—belong primarily to the physician. The hospital should encourage him in his effort to prolong treatment to a safer point rather than, as is so common a practice, put pressure on him to turn the patient out, on the ground that he is a convalescent and can just as well rest at home as to occupy a hospital bed sorely needed for some one acutely or more seriously ill.

And this leads me directly to speak of the privilege and duty of the social service department to see whether home conditions are such that the needed rest can be secured, and to see whether, as enjoined by the doctor, it is secured. I know of no class of cases in which efficient follow-up work by the social service department is productive of so rich and striking results as in heart cases. A study of home conditions, the education of the patient and others of the family in the principles underlying the treatment of the diseased heart, the securing of cooperation between doctor, patient, family, employer—all these may be involved in the handling of the case and may at this stage be of far greater value than having the physician, however skillful he may be, map out the size of the heart by percussion or x-ray, listen to and designate by name the murmurs or study most critically a well-taken electrocardiogram. The determination of hours and nature of future employment is a big problem and yet, for many of these sufferers, a vital one. The proper solution of this problem, involving a readjusting of the home and business life of a man handicapped by heart disease, may require long study and close observation by doctor, nurse, worker, patient, employer. But it is worth it. Years of comparative health and of earning capacity may be added to the wage earner's life.

This is one of the grounds on which the hospital and organizations aiming to lessen the incidence of heart disease and its unfortunate consequences may appeal to the public for financial help. It is a public or community problem. The proper management of a case of heart disease may mean that a worker who would otherwise be an expensive burden to the community as an invalid occupant of a bed in some public or charitable institution is converted into a relatively strong individual capable of earning support for himself and family.

4. There are chronic cardiacs, who are completely broken down, whose home conditions are such that they cannot be properly cared for there. Few hospitals have beds suited to the inexpensive care of these sufferers. They are by compulsion inactive or nearly bedridden, they may live months or years. If hospitals could have beds for such cases in an annex, a special ward, or better, if a

separate pavilion or a separate hospital could be found for them, it would be an act of charity and humanity to see that their last days are passed in comfort. And some of these permanently crippled—and they are handicapped or crippled just as truly as the man with one leg or with a deformed arm or with poor eyesight—are capable of doing light tasks. Some suitable vocation can usually be found in a properly conducted home or hospital, possibly light work yielding some income in money. Occupational therapy has here a great field of usefulness. There is a crying need for accommodations for these chronic cardiacs who are partially or completely broken down and incapacitated for doing full work. Such a home might well be located away from the busier parts of the city, in the country, and could be run at a much less cost per capita than prevails in our hospitals today. It should be a home to which all hospitals, dispensaries and cardiac clinics could send properly selected cases of chronic heart disease.

Here would also be cared for more economically and more satisfactorily a large number of cardiac convalescent from acute inflammation or from acute breakdown of a damaged heart. Supervised rest and light occupation for a few weeks or months would fit many of these individuals to come back to a wage earning status.

5. The hospital may be very helpful by keeping in touch with and co-operating with all agencies that are trying to lessen the woes of these cardiac sufferers. Cardiac clinics in dispensaries may be assisted by the offer of beds to which patients needing hospital care may be sent, and the dispensaries may be afforded facilities for x-ray or laboratory examinations, as well as operating room privileges for tonsillectomies, etc. Organizations having for their object the securing of a country vacation in summer for cardiacs may be assisted in their good work. Hospital records and social service histories may be furnished to inquiring social agencies. Mutual help is always the result of such cooperation. Such an organization as the Association for the Prevention and Relief of Heart Disease has as one of its prime functions the effort to save individuals from heart disease and to try to restore to efficiency so far as possible those afflicted with the disease. It desires to act as a clearing-house for all agencies that are directly or indirectly concerned with work of this character. By cooperation between the association and the hospital such an organization is much better able to accomplish its ends.

6. There is a great need for education along the lines indicated and for further investigation concerning certain features of heart disease, for our knowledge concerning this subject is by no means complete. The hospital can here be of aid. By precept and example it may educate the patient, his friends, the public. Nurses

and social workers may here receive theoretical and practical training. Its laboratories and wards may, so far as practicable, be made available for instruction of undergraduate and graduate medical students. Investigative or research work is possible in a hospital. Nay, it is the one thing necessary if the hospital is to be active, live, progressive.

To recapitulate:

The hospital may help prevent heart disease by affording the best treatment—including prolonged rest—to sufferers from rheumatic fever, syphilis, etc.

In cases of acute heart disease it may make the end result less serious by prolonging the hospital stay.

In chronic cases with a breakdown of the heart it may likewise urge a long rest, suitable medication, and through its follow-up social work, may see that proper care is exercised at home and that the occupation is suited to the heart's capacity for work.

The hospital may justly ask that in some way it be relieved of the expensive burden of caring for the convalescent or chronic heart case and it may endorse and aid on grounds of humanity and economy efforts for the establishment of homes for this class of patients.

It may cooperate with all agencies that are aiming to help prevent or relieve heart disease.

It may increase and spread the knowledge concerning heart disease by educating in its wards nurses, medical students, doctors, social workers, the public.

RELIGION IN HOSPITALS

By WILSON E. DONALDSON, Chaplain, Cook County Hospital,
Chicago, Illinois

Every year the value of hospitals is becoming more definitely recognized. Careful research by physicians and surgeons has been rewarded by the larger success of these institutions established for the care and restoration to health and strength of the sick and injured.

The success of the present is not considered the final result, but every possible element of value is being utilized for the purpose of obtaining an ultimate greater result. The advocacy of a new theory may not receive hearty approval when first presented, but when well authenticated instances prove that it is not simply a theory but has practical value, it is given favorable consideration.

Every conference of physicians or surgeons or hospital superintendents, such as is in session here today, is proof of the statement just made.

Men have not journeyed from all parts of the country for mere pleasure, but for real work, and for such a conference of experience as will give the world at large the benefit of your knowledge.

REASON FOR MY APPEARANCE

The reason for my appearance among you today, though not a member of the hospital association, is that I have been asked to speak on the subject of "Religion in Hospitals."

Though not a physician myself, I approve most heartily of physicians. This is borne out by my personal association with them, which has shown me that they are faithful, conscientious and devoted to their work for humanity; and if any word of mine can be of help to them in their noble work, my message today shall not have been in vain.

While I am not a believer in the "faith" that is advocated by the believers in "faith healing" or the followers of Alexander Dowie or any similar group of those who claim cures without medical assistance, I am a believer in that faith described by James when he said (James 2:17) "Faith, if it hath not works, is dead, being alone," and again, in verse 23rd, "Faith wrought with works, and by works was faith made perfect."

An experience of more than eight years in one of the large hospitals of our land leads me to speak with an emphasis that would not have been possible otherwise. And that emphasis is this statement, namely, I am fully satisfied that *religion should have a definite place in the conduct of every hospital*, for hospitals can and do perpetuate the work of Christ.

DISCOURAGED PATIENTS

Doubtless you will agree with me that when people become sick a large number of them are prone to become discouraged, and then begin to worry and fret. These conditions render the work of the physician more difficult.

It is when the sick are taken from the home, and away from the care of and daily communication with the home folks, that discouragement becomes more and more apparent and more hurtful.

ONE WHO GIVES CHEER

Many years ago there came into the world a new personage. His coming was the occasion of a song of joy sung by the heavenly host, and His association with men was such as to develop the spirit of "good cheer."

The history of His life is the history of One Who "went about doing good," and His life has proved an inspiration to men down through the ages.

In a hospital of any considerable size the duties devolving upon the physicians and surgeons are so pressing that it is but natural for them to consider only one phase of the patient's need, namely, that which concerns the physical man.

Yet I firmly believe that many of the medical profession recognize that the spiritual guidance and encouragement given these afflicted ones after they enter the hospital as patients is very helpful, and absolutely necessary if peace of mind is to be obtained and the requisite courage and morale to endure the stress and strain that is before them.

For instance, if a patient becomes discouraged and loses heart, his mental condition renders his chances of recovery more uncertain, and keeps him from responding as promptly and as fully to the efforts of the physician as would be the case if all fret and worry could be eliminated.

Religion in the hospital must be the presentation of Jesus Christ and His love and His helpfulness, and as the One who desires to be the friend of every one who needs Him, regardless of nationality, or of creed, or of color.

When one is away from home, away from all participation in the affairs of life that usually occupy time and attention, there is very great need for just such a Friend. And the presence of some one who can tactfully and tenderly call attention to the existence of such a Friend, and to His nearness to them in their time of need, is a real help to the sick and a real benefit to the hospital in which he does this Christian work.

Mr. Bacon has well said, "Without healthy bodies, there can be no spiritual, educational or physical success or happiness." He also said, "There are three great institutions in our land that are responsible for the success and happiness of our people: These are, The Church for our spiritual guidance and happiness; the school for our educational welfare and happiness; and the hospitals for our physical well-being and happiness."

The church and the hospital may very justly be associated in the work to which Jesus has called His followers, for He was the Great Physician, and His messages to mankind were intended to uplift the thought of the sick and suffering, and enable them to say, as the great apostle said, "I have learned, in whatever state I am, therewith to be content." Contentment is as helpful to those who are sick as to those who are well.

A reference to some personal experience will illustrate my comment just made. In visiting through a large ward in one of our hospitals just a few weeks ago I came to the bedside of a woman who was sobbing, and gradually working herself into a nervous, hysterical condition, because of the fact that it would be necessary for

her to remain in the hospital for several weeks and undergo an operation. She had three little children at home to be cared for and therefore was in great distress of mind. In a quiet way I reminded her that these children were the gift of the Heavenly Father, and that therefore He would care for them, and that for their sakes she should get control of her nerves. She soon realized the necessity of cheering up and thereby assisting the workers in the hospital to bring about her recovery in order that she might in the quickest time possible get back into the home to give these little ones the personal care the true mother longed to give. Many times did this woman thank me for the words of cheer spoken in the name of the Friend who never forsakes those who trust Him, and only a few weeks passed until she was able to return to her home and her family: but she had been brought to realize that Jesus himself loved her little ones, and that in her helpless condition and absence from home, she could safely commit her children to the care of Him Who would touch the hearts of others on earth to see that her little ones would receive the proper care.

Similar instances occur frequently, and sometimes many of them in a day.

APPROVAL OF THE SUPERINTENDENT

In a recent conversation with Mr. Michael Zimmer, the warden of Cook County Hospital—in which institution I have been privileged to labor for the past eight and one-half years—I asked him to tell me frankly whether or not he considered the work of a chaplain in the hospital of any real practical value.

His reply was a hearty endorsement. And to my mind this endorsement was all the more emphatic from the fact that Mr. Zimmer is a Catholic and I am a Protestant. I can say further that Mr. Zimmer gave me permission to make public, in this connection his approval of religious work in the hospital. He named one condition to which I am sure we will all agree, namely, that the work should be performed in a tactful manner.

As a personal comment I wish to add that if the work cannot be done tactfully, it had better be left undone, for tactless work is a positive hindrance to both the physical and the spiritual improvement of the patient.

In addition to his verbal comment of approval, the general attitude of Mr. Zimmer indicates his recognition of the benefit both to the patients and to the hospital by the presence of those who will cheer the sick and lead them to an earnest desire to live, and to live noble lives.

AMERICAN HOSPITAL ASSOCIATION

CHAPLAIN IN EVERY HOSPITAL

It is my firm belief that every hospital would increase its efficiency by making definite provision for the presence of one or more religious leaders in the institution, whose visitation of the sick at the bedside, or whose conduct of chapel services, would give a religious tone and divert the thought of the patients from themselves or their particular ailment.

The endorsement of the officers of the institution of such a worker or chaplain gives him a standing. It emphasizes the fact that the institution is using every available means to secure the complete restoration of the individual, and thus enable him or her to go forth into the world with a renewal of powers, and fitted for such tasks in life as the Heavenly Father may assign to them.

A HELPER TO THE SUPERINTENDENT

There are many times when the chaplain can be of great help to the superintendent.

Frequently patients will indicate their gratitude for the things that have been done for them, and will mention this fact more freely to the chaplain than to those in charge of the institution.

Sometimes complaints of carelessness on the part of nurses are given to the chaplain. By reporting these facts to the superintendent, correction can be made that will be very helpful to the nurse as well as to the patient and to the institution.

There are times when a patient is greatly worried over financial problems, and that worry becomes a serious hindrance to recovery.

Many patients will explain these conditions to the minister when they would not mention them to the nurse or to the doctor, and nearly every hospital has some way to relieve these distressed ones if the case is brought to their attention.

It is a well-known fact that there are times when the interests of a patient necessitate the performance of a marriage ceremony. In such a case the presence of the chaplain is a real help to the superintendent.

Baptismal services are frequently very desirable, and the fact that the chaplain is available for such a service is a source of real cheer and help to the mother of the child, perhaps at a time when worry would be a serious hindrance to her recovery.

There are also many occasions when one or more of the patients desire to receive the sacrament of the Lord's Supper, and the chaplain is able to make the necessary arrangements, and conduct service either at the bedside or in the chapel, with a number of the patients participating.

Again and again patients are found whose ailments are such that it is impossible for them to write to members of their families, and the chaplain can and does render efficient help at a time of real need, and if he be a man of tact—as he should be—that letter will aid in smoothing rough places, or healing wounds that often are caused by the absence of some member of the family from the home for a protracted period, that has led to an estrangement.

READING FOR THE PATIENTS

The patients need reading matter. The chaplain is in position to secure books or periodicals for an individual or for general distribution.

The Bible, or portions of it bound separately, is oftentimes requested by these patients, and is read with a frequency that indicates very fully their love of the Bible and of the Saviour whose love for mankind is so clearly set forth in many parts of that wonderful book.

Very many patients have definitely declared their gratitude for the Christian influence exerted in the hospital.

They have thanked God for their sickness and their presence in the hospital, because they have been led to see God's goodness to them as they did not see it when they were busy with the affairs of life.

In numerous instances patients have written letters to the chaplain after getting back to their homes, and these letters are full of expressions of thankfulness for what was done for them both physically and spiritually. One such letter will be sufficient to show their real value. It reads as follows: "Rev. Wilson E. Donaldson, Dear Friend: Just a few lines to let you know that I appreciate the many calls you have made to the bedside of those who were seeking some comfort in hours of suffering and sickness. Your words of cheer always brightened the dim light that seemed so hopeless. As a spiritual adviser, you are in the right place and are doing the right work, which is the work of God."

ENTERTAINMENT

In some hospitals there is opportunity for musical or other entertainment that will serve to cheer the patients. Local talent can usually be secured for these concerts or entertainments, and those who render such service learn that they are helping the needy sick, and their own hearts and lives are enriched by this kindness to others.

The chaplain can so provide and direct these musicals or entertainments that they will become an important part of his work with and for the suffering in the hospital.

BAND CONCERTS AT COOK COUNTY HOSPITAL

Seven years ago it was my privilege to ask a brass band, whose members are friends of mine, to come to Cook County Hospital and give an entertainment in music one week evening. My invitation was approved by the superintendent or warden, and the band came—about 60 players. The venture met with so much favor that other bands were invited and a band stand erected in the court between the two middle wings of the hospital. Concerts have been given in increasing numbers during the summer months of each year. Some twenty-five concerts were given during the summer of 1923. These bands *give* their services. The concerts have been a source of great good cheer to the patients, and indeed to all connected with the institution.

The players have repeatedly indicated their own delight in thus having an opportunity to do something to cheer the sick and suffering.

The chaplain who started this plan at the Cook County Hospital finds no difficulty in getting bands to come and give these concerts during the summer season, and if a *room* was available in which entertainments could be held during the winter months I am very sure that talent could be secured for entertainments every week.

CHAPLAIN IN SMALL HOSPITALS

If the hospital is a small one, pastors of neighboring churches can certainly be secured to render such service as has been suggested above.

Speaking for the ministers, I am quite sure they will feel that any such request is giving them an opportunity for Christian service that they have desired to give yet hesitated to ask for.

Arrangements can be made whereby all the sick in such an institution will be visited by some minister, without his doing that work from the standpoint of one denomination as against another, but in the true spirit of Jesus Christ.

My own appointment as chaplain of Cook County Hospital, Chicago, was made by a group of people representing probably a dozen different denominations; and therefore, according to my interpretation, I literally represent Protestantism, and the question of denominationalism does not enter into my work at all.

My work is *for Christ and for needy souls*. And this I believe to be the real heart of true Christianity.

Many of the patients in that institution are Catholic. Priests are there doing work among those of their own faith. And I am glad to say that there is a spirit of cordiality between the priests and myself that makes it a real pleasure to work together. I do not find

them proselyting, and for myself can honestly say that I have not and will not proselyte. Each of us find enough work to do among our own in so far as church questions are to be considered, but each shows kindness to those of other faiths.

CHAPEL SERVICES

Chapel services are held every Sunday. Catholic services every Sunday at 7:30 a. m. Episcopal service every Sunday at 9:45 a. m. And the general Protestant service at 6 o'clock every Sunday evening.

I announce *all* of these services, and that announcement is kindly received by all in the hospital.

OTHER DETAILS

There are additional details that will present themselves to the chaplain and the superintendent of a hospital which should be of very great benefit to the institution itself, and to those who have found it necessary to enter that institution to obtain medical or surgical care.

I believe these conditions will indicate the wisdom of every hospital making provision for religious influence and instruction and good cheer for those who come to receive care in said institution.

In a booklet entitled "The Sermon in the Hospital," that has been placed in my hands, these words are found:

"We are men, not angels. We abide
Not on this earth; but for a little space
We pass upon it; and while so we pass,
God through the dark hath set the Light of Life,
With witness for Himself, the Word of God,
To be among us. Man, with human heart,
And human language, thus interpreting
The One great Will incomprehensible
Only so far as we in human life
Are able to receive it; men as men
Can reach no higher than the Son of God.
The perfect Head and Pattern of mankind."

MR. E. N. WARE: I could not do anything else than appear, as I am accustomed to obey my superiors and when Mr. Bacon, your President and the Superintendent of the hospital of which I am chaplain, ordered me to appear, I counted it a great honor to follow Dr. Donaldson this evening. I agree with Dr. Donaldson in much that he has said regarding the work of the chaplain and the necessity of the chaplain's services in the hospitals. When you come to think that most of the hospitals of the present day have come out of the spirit, if not out of the direct action of the church—and I use that

word church in a very broad sense—the hospital itself does owe something to its mother and it ought to be represented somewhere along the line of the hospital service.

From the time the patient enters until he goes, there ought to be the touch of the mother heart and the evidence of the mother concern. Who can give that so well as the chaplain? He has come into the hospital as the representative of the church and of spiritual things. There have been institutions of learning established that have not been established by believers in Christianity, but I do not know of a hospital anywhere in Christian countries or elsewhere but what has back of it the influence and interest of the people of God and therefore of the church. This is one reason why we ought to have the chaplain's services. There is a reaction also; the chaplain and the interest of the church in a hospital not only bring the spiritual influences but also many times bring other influences that make for helpfulness in the recovery of the patient. Because one good lady has been interested through church work and through the service of the minister of her own denomination in our own Presbyterian Hospital, we have now a splendid phonograph and many good records in the sun parlor to help the patients in their idle hours in their recreation in the sun parlor.

I believe, as Dr. Donaldson has emphasized, that we ought to have a good deal of good cheer in the hospital. I am firmly a believer in the therapeutic value of a good morning or a good afternoon or a smiling face and one that breathes out robustness and cheer and hospitality cannot help but be a real service to the one who is suffering and to one who is emaciated and to one who is discouraged. Again and again I have had patients come to me and thank me for the cheery smile I have given to them as they have come back to consciousness and been greeted, not by the professional, not by one who had an interest merely in the body and physical welfare of the patient, but by one who had an interest in the general welfare. So the chaplain in his visits dispenses cheer and hospitality and hopefulness. It is the opportunity of the chaplain to bring the kind of happiness that lasts and is not affected, but is genuine and helps the patient and the physician. There is a therapeutic value in the "Good morning," and being a friend to man. I wonder if most of you are not well acquainted with that beautiful old poem:

Let me live in the house by the side of the road,
Where the race of men go by;
The men who are good and the men who are bad,
As good and as bad as I.
I would not sit in the scorner's seat,

Or hurl the cynic's ban—
 Let me live in the house by the side of the road,
 And be a friend to man.

And out of my twelve years of hospital experience in the Presbyterian of the City of Chicago and overseas with the field and base hospitals and with the Veterans at home, I believe that this is truly a calling of God, to serve in the house by the side of the road. I have added a verse to Mr. Foss' beautiful poem out of my hospital experience:

It's great to serve in the house by the world's road side,
 Where the suffering ones go by;
 They are frail, they are sick, they are lame, they are blind,
 And perhaps to death very nigh;
 But oh what joy in the round of the day,
 To live the gospel plan,
 And to offer a prayer when the shadows lower,
 "And be a friend to man."

MR. H. A. SCHROETTER: I am not a preacher, I am a layman, but faith without works is dead, and religion without prayer is not worth anything, and if we believe in religion in the hospital, I am astonished that we, as a hospital association, are afraid to show our colors, and when the United States Senate and Congress open up with prayer, that we do not open up with prayer and I hope for the future that that will be done.

HOSPITAL DENTISTRY

By Frederick B. Moorehead, M. D., D. D. S., Dean Dental Department, Illinois University, Chicago

I shall not talk about hospital dentistry, because it is not the function of the hospital to do dentistry. If it is not too great a departure, I should like to say a word about the economic problem of the hospital in general. In the last analysis our job is social and it is possible for us to lose sight of our prime function in the grind of routine. The nurse and the doctor and the hospital administrator are all subject to lose freshness and become, more or less, victims of routine. It is one of the most difficult things to keep alive in the work-a-day world with a fresh human interest in each particular case. Some time ago I read a paper on the overhead of medicine and in the study I was very much intrigued. I wish that someone might set up the figures illustrating the carrying charge of the whole ethical problem and its ancillaries. The composite overhead cost of lands, buildings and their equipment used by medicine, dentistry, pharmacy, nursing, hospitals, the various eleemosynary institutions,

publishing houses, pharmaceutical houses, manufacturers of instruments, appliances, etc., etc., and added to these the cost to the individual student and to his parents, plus the economic loss to society during the several years of undergraduate study, round out a set of figures which are staggering in their dimensions. The economic jolt comes when one remembers that this gigantic composite organization is concerned almost wholly with the sick patient; with the individual who has broken down in mind or body. With the increase in population, which is going on apace, there is an added demand for physicians, dentists, nurses and pharmacists, until the thing assumes almost a vicious circle. A small part only of this huge machine is concerned with prevention. The time must come when we shall reverse the order and assign our greatest activity to the study of the nature and prevention of disease and not be entirely consumed with the problem of pathology.

An interesting item in this discussion is the fact that medical education has never paid any real attention to the mouth; the medical curriculum makes no provision for instruction in this most important part of the body; medical literature contains little about the mouth of a real scientific nature. This defection was met several years ago by the organization of a school of dentistry. The interesting part of the whole matter is the attitude of the medical student who looks upon the mouth as belonging to the dentist while on the other hand the dental student is not trained to care for the mouth and its tissues except in so far as the teeth themselves are concerned. By virtue of his training, his attitude of mind, and his traditions, he does not relate the mouth to the problem of the sick patient. He more or less thinks in terms of teeth and not in terms of physical value or of physical well-being. Therefore, we have on the one hand a medical program which is in no sense prepared to appreciate the mouth and on the other hand a dental program which is not comprehensive enough to relate the mouth to the body as a whole; we hope some day the dentist will be educated as a medical specialist.

Tooth decay is the most widespread of all diseases. There are two phases of tooth decay of first importance. (1) The local phase which has to do with pain and loss of function. (2) The second, and more serious, is the end result of tooth decay, or infection, either acute or chronic. The acute infections involving the teeth are one problem, while the chronic infections involving the teeth are quite another and more serious problem. It is a well established fact that the chronic infections about the teeth are practically all due to the streptococcus and this is the organism which is responsible for a large number of all chronic infections of the body. The chronic joint, chronic nerve, chronic muscle, chronic heart, chronic kidney, chronic blood vessel, etc., owe their defection largely to this organ-

ism. The port of entry of the streptococcus is almost entirely limited to the pelvis, the appendix, the gall bladder, and the head. In the last named territory the notable points are the accessory sinuses, the tonsils and the teeth. Of all the fields of infection the tonsils and the teeth are the most frequently responsible, and since there are thirty-two teeth and two tonsils the incidence is obvious. Dr. Herrick spoke a few moments ago about the heart problems and it is well known that the chronic heart is the product of the streptococcus. It becomes apparent, therefore, that the primal function of the hospital is not dentistry. The hospital cannot be expected to do dentistry any more than it can be expected to supply artificial eyes, artificial limbs, or other appliances. The reconstruction phase of dentistry must belong to the dental practitioner or to dental infirmaries amply equipped for that purpose. It is, however, a vital responsibility on the part of the hospital to recognize and remove all traces of infections from the mouths of all its patients. This means of course that in the routine examination to which all patients are subjected, a careful X-ray of the mouth should be included. The careful examination of the X-ray films together with a critical inspection of the tissues will disclose very quickly any of the harm which may contribute directly or indirectly to the patient's physical defection. The painful mouth is one thing and the mouth involved in chronic infection is another. The one is temporary and the other has its influences on the physical well-being and sometimes the life of the patient. The hospital should be prepared to put every mouth in a condition of safety, and with that its function ends. (Applause.)

PRESIDENT BACON: We are greatly indebted to Dr. Moorehead for this most constructive talk that he has given us. We are honored this evening with the presence of Major Myron W. Snell and I will ask Major Snell to talk to us at this time on the "Care of Tuberculous Patients in General Hospitals."

CARE OF TUBERCULOSIS PATIENTS IN GENERAL HOSPITAL

By Myron W. Snell, M. D., Supervisor, Tuberculosis Sanitarium,
Milwaukee, Wisconsin

In the discussion of this subject it would appear that it would best be done with two objects in view: First, from the viewpoint of the prospective patient and second from the viewpoint of the public, both of which we as hospital executives seek to serve. It is taken for granted that the patient requires hospitalization. You are conducting a hospital—a general hospital—application is made in the usual way, and you are required by every standard of legality to give the proper care to the case of tuberculosis the same as you would

to a case of diabetes mellitus, your obligations being the same in the one as in the other. If you haven't made provision for the reception of all forms of disease of whatever nature, the fault is with you, not with the other patients in your hospital, nor with the public which supports your institution. How are you to do it? Naturally one first conceives the idea that a private room is the only safe place in dealing with the victim of active pulmonary tuberculosis, and of course this is ideal if it can be executed, and it is to be hoped that some day the power which builds hospitals will find it possible to do away with the ward idea in hospital construction. We are told, you know, that the ward does just as well, when all cases are properly classified. And the only correct answer to that is, there are none such.

While waiting for this millennium, your attention is invited to the use of the cubicle. If lumber or wall board is not available, wire or cord, sheets and pins are, and anybody can construct the latter. It must be definitely remembered that the problem of contagion in any form of tuberculosis is not difficult to combat, particularly outside the children's ward—and of course anybody who knowingly exposes a child to this disorder, anywhere, is guilty of contributory crime. The patient within the cubicle (of whatever construction) is just as safe from contagion from the other patient as though each were in a private room a block apart. It is the rarest thing in the world to find two acute contagious disorders affecting the same patient at the same time. Oh, yes, many discussions have waxed warm on this issue; but the fact remains that the story of convalescence has revealed a mistaken diagnosis. Many, many hospitals—especially those conducted by the U. S. Government—are using the cubicle, principally of the temporary form of construction, in the caring for all forms of contagious disorders.

In the general hospital at the National Soldiers' Home four rooms are provided in each 30-bed ward, and are in almost constant use for the reception of objectionable or terminal cases, while in the tuberculosis unit only three rooms are available for each 51-bed ward. This is an insufficient number to meet any form of an emergency, so the bed sheet pinned to a stretched wire is utilized in constructing private rooms, and so far as is known, no contagion has extended beyond its confines, and this has included all forms, from pulmonary tuberculosis to scarlet fever.

Now the public—with which we have to contend at all times—has not been fully reassured on this particular subject. When one realizes the immense strides the hospital idea has made in 25 years, and is now making more rapidly than ever before, it is not remarkable that the potential patient has failed to keep pace with a subject of which we are all continually learning something. Go into the

supply or storage rooms of any hospital—but more particularly the Government, State or municipal—and what you will find in the way of discarded equipment is a sad commentary on the tax question. It is of course necessary to provide new equipment for worn out and obsolete, but for the most part our doctors are allowing the supply houses to do the thinking for them in this particular field of endeavor. Now, if you will concede that point, is it not most natural for the unknowing public to require instruction over an extended period of time?

Approximately four million men and women saw service with the armed forces of the United States for an average period of 216 days in the recent World War, and every one of these citizens is now an advocate of the use of a hospital in which to be sick, and it behooves every hospital executive to “put his house in order,” for the hospital idea is just now in the early days of its infancy. As an illustration, it is frequently necessary to use voluble arguments and not infrequently to resort to an executive order to accomplish the transfer of the Civil War veteran from the domiciliary barracks to the hospital, but you are respectfully assured that it is a continuous argument to keep the World War veteran from breaking in.

The American Hospital Association, through its board of directors, has gone on record in the following language:

“WHEREAS, in the past, not all general hospitals have accepted tuberculosis, and,

“WHEREAS, it has been demonstrated in a number of such institutions that this class of cases may be admitted into separate wards without detriment to other patients, and,

“WHEREAS, both for humanitarian reasons and for purposes of instruction, there is need for a change of policy in this regard, then be it

“RESOLVED, that the trustees of the American Hospital Association recommend to the American Hospital Association that it pass a resolution to the effect that it recommend to the hospitals that separate wards be established in general hospitals, where possible, for the care of such patients.”

When this organization after a thorough study of the subject, speaks in this no uncertain way, we, as its representatives in the field, so to speak, should accept the dictum and act in accordance with its findings.

Some three months ago an order was issued that it would be necessary for each Branch of the Soldiers' Homes to make preparations to give the required care and treatment to the honorably discharged female soldiers, of whom you will remember there are some 50,000. This has been done so far only in a small way, but the

fact that it has been done at all makes all other problems of hospital accomplishment appear easy by contrast. Here was an organization that since 1867 had devoted its time and enthusiasm to disabled ex-soldiers of the male persuasion. All the hospital construction—wards, water sections, mess hall facilities—have been arranged for an unmixed population. Some changes are necessary, and are being made to meet the emergency, and the argument is that most anything can be done if the same energy is applied to the task, as there is oftentimes intelligence used in striving to combat the thing as a principle of action.

It appears that in the recommendation of the trustees of the American Hospital Association a very important part of the recommendation is missing, in that the word "treatment" is not used. It is very evident that if the general hospital is going to admit cases of tuberculosis for care, it must of necessity provide for proper treatment in this class of disease. If there is a well-equipped laboratory properly personelled, the medical personnel is generally easily provided. With the modern methods of diagnosis in vogue, it is apparently an obligation upon all hospitals, wherever located, to provide adequate care and treatment for this disease.

Statistics will evidently show that there has been a considerable depreciation in the number of cases of pulmonary tuberculosis, and if the seeker for knowledge will follow this information to the fountain head it will be found in a great majority of instances that the methods of diagnosis, the better information that we have of this disease, and the application of the proper treatment, apply, in the percentage column, to cases of pulmonary tuberculosis before the age of puberty.

Probably the greatest good to come from the hospitalization of tuberculosis in the general hospital will be accomplished in having an educated personnel for the proper care and treatment of the disease. Dr. William Charles White says that this education should begin in the general hospital and then extend to the private and public sanatoria, instead of the other way 'round. The acute miliary case, the haemorrhagic case, and the terminal case should not be transported for great distances to a sanatorium but should receive treatment in the general hospital. The absence of any new knowledge in treating pulmonary tuberculosis, beyond that of 15 years ago, can be laid at the door of the general hospital. The care of the tuberculosis patient has been taken out of the hands of the medical fraternity to some extent and placed in those of the Welfare Secretary, often to the detriment of all parties, and all of whom are to blame.

PRESIDENT BACON: We will now hear from Major Hedding.

MAJOR B. E. HEDDING, Chief of Tuberculosis Service, National Home for Disabled Volunteer Soldiers, Milwaukee, Wis.: In that

hospital that I described a little to you the other night, that the Government has built so complete for the care of pulmonary tuberculosis and its treatment, we have two debits, the routine examination of the mouth is just as important to us and just as much a matter of his diagnosis and his prognosis as is his X-ray, and it is incorporated in his clinical history the same as all laboratory findings. Now this is done simply because we know the condition of that man's mouth has much to do with his ultimate recovery from pulmonary tuberculosis.

In the discussion of Major Snell's paper, I want to do it as briefly as I can and as helpfully, and I think I can do it by telling an experience we had together a little over a year ago that forced upon us the care and treatment of pulmonary tuberculosis in the general hospital, in a thirty-bed ward, while we were constructing our large institution for the care and treatment of pulmonary tuberculosis. In order to help the pressure here within this district, we established a thirty-bed observation ward for the diagnosis of pulmonary tuberculosis. We had that authority from our headquarters, with these instructions—that under no conditions were we to keep for treatment a case of pulmonary tuberculosis within our general hospital. During the time we had this ward as an observation ward solely for the diagnosis and proper classification and sending to the proper Veterans' Bureau Hospital of cases of active pulmonary tuberculosis. We handled as many as fifty cases a month, completely diagnosed and transferred to the proper hospital. We were going along nicely as an observation ward. We then received unexpectedly definite instructions from headquarters that inasmuch as within a few weeks we would open our new unit, we must keep active cases of pulmonary tuberculosis, a limited number within this thirty-bed ward and continue our observation. The weeks went by one after another until they became months, and when we finally moved into the new unit we took with us twenty-six cases of pulmonary tuberculosis, from incipient to far advanced and active, and continued all of the time with our observation. Now, I presume had they told Major Snell and myself to do that within this general hospital we would have said right away, "It cannot be done"; but we had to do it, and as he has presented so clearly, the day is not far distant when you will all have to do it, because we will know that is where it should be done, in the general hospital, because it is not possible to build enough in civil life outside of our ex-service problem, enough institutions to specifically care for pulmonary tuberculosis. If you cannot do this, you can do this much—you can run it as an observation clearing house for pulmonary tuberculosis, and another thing, you can educate the man how to take care of himself, if he has pulmonary tuberculosis. Of course the hardest thing you have got

to contend with is the difference in the patient who has pulmonary tuberculosis and every other kind of patient you have in your hospital; he is a different bird altogether. All you people who know tuberculosis know he is not the same kind of individual as the fellow that is in the general hospital, and rightly so; he is with you for months and months and months, and he is fighting a hard old tiresome difficult job and he has lots of time to do nothing but think of things that are not right and things that he complains of; but within this thirty-bed ward we took care of terminal cases, we changed the diet, we changed the method of nursing and changed the method throughout, different from any ward the Major had in his hospital—in this thirty-bed ward—and did very good work because we have cases that have reached their arrest, that began in bed very, very sick, and that ward is a closed ward in the general hospital. But I would say this, if you are asked to do it, first of all face this problem—that you have got to have something different than you have anywhere else in your hospital, your personnel must be differently trained, your diet is going to be different, your manner of handling many of the things that the Chaplain spoke about—he is going to be blamed busy, being in that kind of a ward, and he knows it—and you have got to meet every one of those conditions to successfully treat the case of pulmonary tuberculosis, but I want to say it can be done and I think the sooner you get ready to do it, the more helpful you will be to a mass of unfortunate individuals that are not getting it, and I think it is the duty of all general hospitals to take this up, which I know will be one of the best things they can do. Thank you.

THE CHILDREN'S DEPARTMENT OF THE GENERAL HOSPITAL

By Henry F. Helmholz, M. D., Section on Pediatrics, The Mayo Clinic, Rochester, Minnesota

The development of pediatrics in the last twenty-five years has completely changed the relationship of the children's department in the general hospital to the other departments. In days gone by, the children were all put together in a ward, so as to localize the danger of contagious diseases to one part of the hospital. No one with any special training was in charge of all the children; the surgeon took charge of his cases, the orthopedist of his, the internist of his, and the obstetrician of the infants. The domain of childhood was within the realm of the internist, whose ideas of the care necessary for the infant and child were based largely on care of adults, reduced by the proper scale. These men had to do the work, because there were no children's specialists at that time to whom the care of the children could be entrusted.

THE DEVELOPMENT OF PEDIATRICS

Pediatrics is the most recently developed branch of general medicine. Only in the last three decades of the nineteenth century have physicians devoted themselves exclusively to the care and treatment of children. Neither medical schools in this country, nor those abroad, had special departments in pediatrics. Courses in pediatrics were given under general medicine, and usually were in charge of an assistant who served his time until he could step into a "higher position," where he would no longer need to take care of the children. This practice is best illustrated by the position of pediatrics in England today, where perhaps fewer men than in any other country are actually working in this special field. The condition there represents fairly well the position of pediatrics in this country twenty-five years ago. In 1900, there were not sufficient pediatricians to care for the pediatric services of all the general hospitals. I doubt whether there were more than two or three men in Chicago who were devoting themselves entirely to pediatrics. At present there must be fifty or more men in that city who are practicing exclusively among children. What has brought about this development and growth? In large measure, the recognition of the following facts: That the development and growth of children entail their own problems; that the child—and the infant, in particular—is not a small adult; that these problems, which are largely those of prevention, can be solved only by intensive work and application.

A truly remarkable crop of pediatricians has been produced in the first twenty-three years of the twentieth century. For example, in 1905 Dr. Sedgwick initiated the practice of pediatrics in Minneapolis. As a heritage to that city, he left, when he died this last year, seventeen pediatricians to carry on the work of caring for the children of Minneapolis. When I started practicing in Evanston in 1911 there was no other pediatrician between Wilson Avenue in Chicago and Waukegan, a distance of at least thirty miles, settled by people of means, who were anxious to give their children every advantage physically, as well as intellectually. At present, only twelve years later, there are at least fifteen men, properly trained in pediatrics, taking care of the children in this district. I am emphasizing the growth in the number of pediatricians, because it is a *sine qua non* of further development in the situation of our children's departments in the general hospital. We have the men. How shall we use them?

PROBLEMS IN THE ADMINISTRATION OF THE CHILDREN'S SERVICE

As Richardson has emphasized, the various services in a general hospital have each been a unit. The surgical unit has had its various subdivisions, and the medical unit has had its subdivisions; but the children's ward has not been a unit, it has been a hodge-podge, con-

sisting of a few surgical cases, a few medical cases, and a few nutritional cases. The latter are usually under the care of the medical man in charge of the ward, and all but a few of the others are looked after by other services. As long as the physician in charge of the children's ward is not a trained pediatrician, this method of supervision cannot be objected to, but as soon as a capable specialist is in charge, the relationship changes. What surgeon now is not anxious to have the close cooperation of a pediatricist in the preparation for operation, as well as in the after care, of a little patient with pyloric stenosis? What nose and throat specialist of standing is willing to assume the responsibility of operation on his patients without a previous physical examination to exclude the presence of an acute infection or even of a leukemia?

Every child should be considered first of all from the point of view of its general health, and only secondarily with regard to the special cause that brings it to the hospital. A complete physical examination by a pediatricist should be given routinely on entrance. Unfortunately, many children are recklessly brought to the hospital the morning of operation, and anesthesia is given without any preliminary physical examination. In this regard, probably the private patients receive less care than the charity patients. The fact that harmful results do not occur more often than they do is owing to the splendid resistance of the child, rather than to the care taken by the physician. In order that this evil be corrected, and that the children may have the best possible service in the hospital, a pediatricist of experience should be in charge of the children's service, and be individually responsible for its conduct. Every child who is to be admitted to the children's ward should be admitted on the children's service, not on the surgical service, nor any other service planned primarily for adults, as, for instance, the obstetrical, on which the infant is born—but should be taken care of by the pediatrician immediately after birth. This arrangement, first worked out by Pirquet & Schauta in Vienna, has proven uniformly successful. The surgeon, the orthopedist, or the nose and throat specialist, will act as consultants, and carry out their special service in cooperation with the pediatricist, thus constantly assuring the best service from all angles. The pediatricist should, of course, have the power to select sufficient assistants to carry on the work properly. Such an arrangement has been introduced at the Children's Memorial Hospital in Chicago, and is the working basis of the children's department of the Mayo Clinic.

PHYSICAL EQUIPMENT, AND CONTROL OF CONTAGION AND NOISE

The physical equipment of the children's department is important, and the control of contagion and noise are the outstanding special problems to be considered in planning it.

Contagion.—Contagion is probably the most difficult problem that confronts the general hospital in the conduct of a children's department. It has two distinct angles: The isolation of the entire children's department from the rest of the hospital, and the isolation of individual patients from the rest of the children in the department. If the matter of isolation receives proper attention at the time when the hospital is built, it is relatively easy to arrange the former. It becomes more difficult later on, if the ward is merely one set of rooms set apart for the care of children, and if the same group of nurses takes care of children and adults. With regard to the size of the ward—the only advantage of the large ward is ease of nursing and ventilation. In opposition to this is the necessity of closing the ward in time of infection, and the fact that there may be multiple series of infections. The first of these objections may be overcome to a considerable degree by the use of glass partitions, and the second, by the building arrangements. The small unit in children's wards is perhaps the most important physical factor in reducing infection, as well as in taking care of infection when it does occur.

Assuming for the moment that a special part of the hospital has been set aside for children, the next factor in the control of contagion is to have all children examined, on admission, before they are put in a room with other children. This examination may be made by a head nurse, if a resident physician is not available. Such a nurse can be taught to look for membranes in the throat, rashes on the skin, Koplik's spots, suspicious coughs, and so forth, so that if there is the slightest suspicion of an acute infectious disease the child can be put in a separate room. The ability of the nurse to do so-called aseptic nursing, to distinguish between what is clean and what is soiled by the contagious subject, is extremely effective in the control of contagion. No amount of locking of doors will prevent the spread of contagious disease if the nursing staff, and the medical staff too, do not distinguish between what is contaminated and what is not. The education of nurses, physicians and the laity in aseptic nursing is therefore of great importance. The use of various forms of cubicles also has tended to cut down infections, particularly those that are air borne.

The admission of visitors is another source of contagion. Under no circumstances should children be admitted to the wards. The visiting hours should be as short as possible, and during the epidemic of any infectious disease the parents of the extremely ill should be the only persons admitted.

Up to the present time measles has been the most difficult of the contagious diseases to control in the hospital. The use of Degwitz convalescent serum has been of great value in aborting epidemics. We recently had two cases break out in our section with

intimate exposure of five children, three infants and two older children, all of whom were given convalescent serum, and none contracted measles.

A children's department, in order to be useful, must be constantly available for the admission of new patients, even in time of contagion. The well arranged department of small units, and nursing and medical staff adequately trained in aseptic technic, make this possible.

This brings me to the responsibility of the hospital in cases of acquired disease within the hospital. Unfortunately, this does occur even when all possible precautions are taken; but there is still much to be done to reduce the preventable morbidity and mortality, and I wish to emphasize not only the strictly contagious diseases like measles, scarlet fever, and diphtheria, but particularly infections of the upper respiratory tract, which frequently give rise to the fatal outcome.

Noise.—The crying of infants and children may be a serious handicap to the care of patients in other parts of the hospital. If the children's ward can be placed in the top story, the noise will be considerably reduced. This matter is one that should be considered before the hospital is built, rather than afterward.

The organization of the various parts of the pediatric department will depend on the size of the hospital and the community that is to be served. Four main factors must always be considered: (1) The care of the acutely sick in the ward; (2) the care of the ambulatory sick in an out-patient department; (3) the education of doctors and nurses in pediatrics, and (4) the education of the public in the care and hygiene of normal infants and children.

THE EDUCATION OF MOTHERS IN PREVENTION OF DISEASE

The relation of the hospital to the prevention of disease is particularly important. Pediatrics has probably advanced farther on the preventive side in the last twenty years than has any other branch of medicine. Prevention is taught by pediatricians and nurses not only in the special organizations for prevention of children's diseases, which have reached their culmination in the American Child Health Association, and in local organizations in practically every large city in the country, but also in private practice. Perhaps the most striking result of this work is the almost complete eradication of cholera infantum in the hot summer months. In July and August our children's hospitals and children's wards in the general hospitals formerly were filled with infants in a toxic condition, brought in to die. Rarely did they live over twenty-four hours, in spite of all that could be done for them. Now, one seldom sees such a case. The disease is not developing to such a serious stage, mothers

having been educated to recognize the early stages and to apply the proper measures.

It would seem that the hospital in smaller cities and towns should play a very much more important part in preventing disease. Its organization should include, in its department of infant and child care, provision not only for the sick, but for keeping the normal child well. There is danger in introducing the prevention of disease into an institution that has for centuries served merely the sick, but it seems to me it is a logical change, essential to keeping pace with the development of medicine.

THE CHILDREN'S WARD AND ENDOWMENT

The interest of the community in a hospital can be stimulated by the work done in the children's section as it can be in no other way. The appeal of caring for the crippled child and the helpless infant is such that, in a campaign for funds or endowment, the presence of a children's ward is of great importance. The necessity for endowment of a children's ward must be emphasized, because it is the length of time that children are frequently required to be in a hospital that makes it impossible for parents to send them when the charges must cover the entire cost of the bed. In large cities, where the tendency to live in two or three-room apartments is on the increase, the impossibility of taking care of children in the home makes increased facilities for the children's ward an absolute necessity. It is therefore essential that, by endowment, the cost of hospitalization be reduced, so as to make beds available at such a rate that those who most need hospital care can afford to pay for it.

Meeting adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, November 2, 1923, 9:30 a. m., President Bacon in the Chair

GENERAL SESSION

PRESIDENT BACON: As you see by the program, the first paper will be "The Heart of the Hospital," and we are very fortunate in having Sister Rose Alexius, Superintendent of the Good Samaritan Hospital, Cincinnati, give this paper. It is something that I feel is of vital importance, for in these days of specializing, standardizing, etc., we are apt to lose sight of the "heart" that should be in the hospital.

THE HEART OF THE HOSPITAL

By Sister Rose Alexius, Supt. Good Samaritan Hospital, Cincinnati, Ohio

Sometimes, in discussing the standardization of hospitals, there seems to be a confusion of the terms systematization and organization.

The systematizing of a hospital consists in so dividing its activities that each individual in the personnel is responsible for some specific function of the institution, and at the same time is, in some degree, dependent upon his co-workers. Under a perfect system, things move on with a machine-like precision. It may even be that the cogs fit so smoothly that the clicking of wheels is hardly perceptible.

A good organization is a perfect system which has received the breath of life, which is animated by a unifying spirit. In a well organized hospital this vital principle is the spirit of Christ. The hospital's life pulsates in unison with the heart throbs of Him who lived and died for suffering humanity.

The heart of Christ should be the heart of the hospital. We have not to look far to discover a reason for this. If we were to seek one characteristic which stands out more boldly in the life of the Divine Master, it is His care for the sick, the weak, the lame and the afflicted of every kind. His tender eye quickly saw and His tender heart keenly felt the manifold afflictions of men. Coming to heal the ills of the soul, His mission seemed to be rather to cure the maladies of the body. No form of human misery escaped his notice. As he moved among the people, healing went out from His very Presence. The whole Gospel narrative is a story of His con-

sideration for the wretchedness of men. Indeed charity toward the afflicted is the distinctive mark of His followers. "By this shall all men know that you are my disciples, if you have charity one for another"—that charity which joins the creature to the Creator, which begins with God and ends with His lowliest creature. Above all, it is the distinctive law which Christ brought from heaven and gave to man on earth—a law which was not thundered from Sinai nor transcribed on tables of stone, but which was spoken throughout Judea and Galilee—wherever He labored, in every word He preached, in every act He performed, in the very life He lived.

Truly, this is a noble example to follow, a noble type to copy. Catching something of the spirit of this grand Exemplar, and sensing the demands He made upon his followers, we find the fruition of His teachings gloriously manifested in the world today. We may look proudly about our own land and see it dotted with hospitals and other charitable institutions, which proclaim the loving teachings of Him who was the Good Samaritan and the Divine Healer.

This is, indeed, the motive that impels men and women of all religions to consecrate their lives to caring for the sick. This is the motive which has created hospitals and peopled them with noble souls and generous hearts, who work not for gold, but solely in imitation of the Divine Master for the relief of broken humanity.

The whole plan of the hospital work should be in harmony with this spirit, which, with an eye single to His purpose, should kindle the manner, temper the mood, soften the tone, and inspire kindness within the sacred walls of every hospital. The gentleness of Jesus should be in the nurse's hand, in the surgeon's fingers and in the hearts of all. This is the charity that "is patient, is kind; seeketh not her own; beareth all things, believeth all things, hopeth all things, endureth all things." This sharing of Christ's love for the afflicted will inspire a comforting compassion, a tender sympathy, that may lift many a depressed heart from unfathomed depths of sorrow. If such a heart send its pulsing life through every member of the hospital body, the incoming patient will be greeted cordially, waited upon promptly, and made to feel that he is among friends who are interested in him and in his welfare. He will be spared everything that is unpleasant, and, as far as is possible, he will have his courage strengthened, his apprehensive fears allayed.

Everything should be done and nothing left undone of care and attention, labor, fatigue and sacrifice to make the patient feel welcome and at home. This is the spirit—the heart of the hospital, the benign influence which should go surging through every vein and artery of its varied activities.

That the patient may receive this consideration and attention—that the great heart of the hospital may go out to him in his afflic-

tions—much care and prudence must be used in choosing only those who have a special fitness and aptitude for this particular and all important work.

It is of prime importance that they be unsparing of self; that they have a high concept of duty for this inspiring task—this labor of love; that they be in full accord with the best traditions of hospital life.

If a person enters hospital duty with any motive short of sacrifice and disregard of self, his work will become a drudgery and be doomed to failure. Whether he is in the vanguard of civilization, conquering disease, or on the battlefield binding up the wounds of the fallen soldiers, or in the quiet precincts of the hospital attending the ordinary ills of life, his work is a round of exactions and duties which demand exclusion of self to the betterment of others.

It requires not only his physical presence and exertion, but a wholesouled, full-hearted participation in every phase and circumstance of the case coming into his care or under his charge. He must know that the duties of a hospital attache in any capacity may not be assumed carelessly, and meet with any degree of real success.

This work requires not only a skilled knowledge and expert training, but an aptitude—a talent—a love for a work where all thought of self must vanish, and the whole man be given to the care and cure of others. Manifestly, all this does not appeal to human nature acting on merely human motives, and touching merely human interests. To most men there is no great appeal, no impelling incentive, to enter a life which, if it give some few rewards, entails much unrequited toil and unmeasured hardships.

There must be a consecration of service, a dedication of self, which will raise the individual above any earthly consideration—up to the heights where he may taste only the sweet joys of serving others.

It is very much akin to that other noble consecration—that of the soldier who risks his life and endures untold hardships and dangers for his fellowmen. He is always ready and oftentimes makes the supreme sacrifice to defend his fellow man.

Only such lofty purpose, high intent and noble conception will give hospital work that sympathetic touch, that personal interest, that intimate contact and feeling for the patient which, singly or collectively, constitute the true idea of the real heart of the hospital.

That the heart of the hospital may be more manifest to the patient, solicitude should go beyond mere concern for the patient's physical comfort. With sickness there frequently comes not only financial stress and mental depression, but also social and spiritual bankruptcy. During the struggle, when life and health tremble in the balance, these aspects of the patient's needs must have due atten-

tion. He must have assurance that provision is made for the loved ones during his absence; his depression and homesickness must be combated by aesthetic distraction. His mind must be set at rest.

But the patient is not the only sufferer who has a claim on the heart of the hospital. His anxious relatives and friends are also entitled to kindly consideration. The information clerk should always be ready to give cheerfully a correct report of the patient's condition. In large hospitals, visiting must be strictly regulated—first, to spare the patient the fatigue and excitement caused by too much company; second, to permit the work of the nurses and orderlies to be properly done. But when the dark shadow hovers over the sick bed, merciful charity dictates the suspension of rules that would keep members of the family away from their dear one in a struggle with death.

Little attentions mean much to the grief stricken, even though at the time they seem accepted with indifference. The placing in a more comfortable chair, the giving of a cup of tea, the showing of sympathy in word and action will be gratefully remembered.

Business is supposed to exclude sentiment, but the business office of the hospital must not sever connection with the life giving heart.

A perfect hospital cannot be achieved by imperfect humanity, yet we must ever strive toward its perfection. The following rule, formulated by Rev. Father Moulinier and published in the initial number of *"Hospital Progress,"* if universally followed, will lead us nearer and nearer to our ideal:

"Every moment of the day and night we must rigorously search our consciences, and, in all this watching and scrutinizing, we must look for just one thing—are we doing for the patient what we would like to have done unto us if we were the patient?"

THE INTERN PROBLEM FROM THE STANDPOINT OF MEDICAL EDUCATION

By N. P. Colwell, M. D., Secretary of the Council on Medical
Education and Hospitals of the American Medical
Association, Chicago

A few words first in regard to the internship itself:

The one and the only legitimate purpose of the hospital internship is educational. If this purpose is fully recognized and carried out by the hospital the internship is of benefit to all concerned, depending directly on the extent to which this educational function is fulfilled. If it is not so recognized and carried out the internship is a counterfeit, it bears a misleading label, and is an actual menace to the patient.

A provision for the satisfactory training of interns draws into the hospital a constant stream of enthusiastic younger physicians whose minds are filled with the later methods of examination, diagnosis and treatment which they have learned in the medical schools from which they come. The many helpful suggestions which may be obtained from the interns by the members of the attending staff may be more than a fair return for the supervision and direction of the interns' work. The interns are given an opportunity to begin active practice in the hospital, where they can come in contact with, and help care for, a large number and variety of patients, so that the usual—and expected—errors of judgment or action may not only be promptly corrected and their repetition prevented, but also become of positive educational value. Through well conducted intern training, the hospital is pervaded by an educational, or research atmosphere which keeps it active, progressive, and up-to-date.

Where the educational function is not recognized, and, therefore, not carried out, the reverse of these conditions prevails. Like the proverbial "gold-brick," the form and appearance are there but the value is lacking, and the intern may be hindered rather than helped. Instead of obtaining further instruction and direction in his clinical work, he may indeed develop erroneous ideas and loose methods in his practice. Without supervision, instead of being corrected, his errors may be repeated indefinitely, and, possibly, with disastrous results to the patient. The blame under such circumstances, although usually placed on the intern, more properly falls on the attending staff and the management of the hospital for allowing patients to be treated by unsupervised physicians who are known to be inexperienced. In such a hospital the intern does not receive a fair return for his services and his time may be more than wasted.

THE EDUCATIONAL PROBLEM

The intern problem from the educational standpoint has varied considerably during the last several decades. At first the value of internships to medical students was not widely appreciated for the reason that so very few hospitals recognized their educational function. Their value was soon recognized, however, by the interns who served in these hospitals, and, during more recent years, internships have been eagerly sought after. In fact, students soon became willing to accept internships in almost any hospital which would admit them. In a hospital with a fair variety of patients, in a year or eighteen months, the intern had a greater opportunity to apply his medical knowledge in the examination and treatment of patients than he could obtain in several years of general practice. He then entered general practice with greater confidence and with fewer

chances of making some serious error, which would be disastrous to his future medical career. Through the intern service, in fact, while still under supervision, he gained the essential experience and skill without endangering the lives of the patients who were under his supervised care.

SUPPLY OF HOSPITALS

Another early problem was that many hospitals would not accept interns under any circumstances, and of those which did, comparatively few provided internships of any real educational value. An investigation made in 1913 showed that, of about 2,500 general hospitals, only 850 were in any way making use of interns, and of these, as shown by later investigations, only 314 could be approved for intern training. Many of the internships extended over eighteen months or two years, so that the 850 hospitals provided only about 2,000 internships each year for the 4,000 or more medical graduates. At that time, therefore, the requirement of a year of intern training, as an essential for either the degree or the license, was out of the question, and the majority of medical graduates entered at once on general practice. Considering the inferior training that was being provided 20 years ago by the majority of the medical schools, one can now appreciate how serious such practice was from the patients' standpoint. The surprising thing is that, under the circumstances, there have been so few really serious results. The rapid improvement in medical education, and particularly the greater opportunities and attention given to clinical instruction in medical schools, not only diminished the danger of error on the part of the recent graduate, but also made his services as an intern of greater value to the hospital. With the advances in medical education, therefore, there has been a corresponding increase in the number of hospitals seeking interns, so that the demand now greatly exceeds the supply. At the present time 940 hospitals report that they have 4,021 interns and 1,544 hospitals report that they have 3,912 resident physicians, many of whom have been more or less permanently employed to serve in lieu of interns. This makes a total of 7,933 serving as interns and resident physicians. From these figures the total number of places where competent interns would be welcomed may be roughly estimated at somewhere between 7,000 and 8,000.

INTERN'S OPPORTUNITY FOR CHOICE

With the increased demand for intern service, the position of the recent graduate has been changed. Where formerly he had to accept whatever he could get, now he is in position to choose the one in which he believes a more satisfactory training can be obtained.

AMERICAN HOSPITAL ASSOCIATION

The increased demand also has made it possible to establish lists of hospitals which provide for intern training, including those which are reputed to provide internships of high educational value, and others which on investigation were found to be meeting certain requirements in their provision for intern training. The effect of established standards is seen in the reduced number of hospitals in the list of those approved for intern training. In 1913 2,424 hospitals were listed, and of these 852 reported a total of 3,006 interns. In 1914 a list of these was referred to prominent physicians or medical educators in the various states for revision, and the number approved was reduced to 603. As the investigation proceeded other institutions were added until in 1916 there were 687. A schedule of requirements was established in 1919 on the basis of which, in 1920, the list was revised and the number of those approved was reduced to 593. Since then other hospitals have been gradually added until now (1923) the list includes 659 hospitals. Of the original 852

HOSPITALS APPROVED FOR INTERN TRAINING

By the Council on Medical Education and Hospitals of the American Medical Association

SECTION I—GENERAL HOSPITALS

	1914	1916	1920	1921	1923
Hospitals	508	519	469	482	510
Beds	88,000	92,464	103,997	106,868	121,740
Internships	2,667	2,737	2,960	2,962	3,119

SECTION II—NERVOUS AND MENTAL HOSPITALS

Hospitals	35	57	25	26	30
Beds	53,688	85,654	41,722	43,944	49,830
Internships	220	303	72	88	57

SECTION III—OTHER SPECIAL HOSPITALS

Hospitals	60	111	99	102	119
Beds	8,495	20,187	14,135	15,990	17,279
Internships	208	328	388	420	514

TOTALS

Hospitals	603	687	593	610	659
Beds	150,183	198,305	159,854	166,802	188,849
Internships	3,095	3,368	3,420	3,470	3,690

hospitals, now only 314 are on the approved list, 345 others having been added. Instead of the 3,006 internships of uncertain value which were listed in 1913, there are now 3,690 in hospitals which on investigation are believed to be in position to furnish a fairly accept-

able training for interns. These facts show that conditions in hospitals for the training of interns have been tremendously improved, which means also better staff organizations, better laboratory equipment, better histories of patients, better records, more clinical conferences, better supervision of the intern's work and—last but not least—a far better care of the patients.

For the last five years, instead of there being a lack of opportunity for graduates to secure internships, the tables are turned and all one hears is of a lack of graduates to fill the places in the hospitals. The situation was particularly acute in 1922, when there were only 2,592 graduates—an unusually small number, due to the small class enrollment in 1918 because of the war.

Some relief is in sight, since larger numbers of students have been enrolled in medical schools each year since the world war and, as a result, the numbers of medical graduates will be larger, at least during the next few years. This year (1923) there were 3,120 graduates, while in 1924 the number will be approximately 3,700 and in 1925 about 4,500. The demand for internships is also increasing, but, evidently, the increase is not so rapid.

LENGTHEN THE INTERN SERVICE

Another aid in solving the problem of intern supply would be to lengthen the intern service to eighteen months or two years. Many hospitals required the longer service until the supply of interns became so limited. Some which are giving a valuable intern training still hold to the prolonged service and are having no trouble to secure interns. In some of the larger hospitals, also, which require only a year, the interns frequently prolong their service voluntarily. By thus extending the intern service a smaller number of interns *each year* will be required by these hospitals and the situation will be correspondingly relieved.

RESIDENT PHYSICIANS AND SURGEONS

Still another aid in solving the problem of intern supply rests in an extension of the intern training to provide graduate medical instruction for resident physicians and others. Some hospitals even today, from their staff of interns, select those who show special merit to continue in the hospital as resident physicians and surgeons. This type of training might be further developed, particularly in some of the larger general hospitals, by admitting to their intern service only those who have already served a rotating internship in some other hospital. This would be especially advantageous in special hospitals such as those for diseases of the eye, ear, nose and throat or other clinical specialties. Such a requirement by the special hospital and

the larger general hospitals would considerably relieve the situation, so that the numbers graduating from medical schools each year will more nearly supply the demand for interns. These residencies or higher internships might, with advantage to the hospital, be further developed into valuable graduate courses in the specialties by requiring review courses in the medical sciences, courses in technique and certain research work preliminary to or along with the clinical work as second and first assistant in the special department.

HOSPITALS AS EDUCATIONAL CENTERS

It may be safely predicted that, as time goes on, hospitals will be considered less and less as progressive or safe institutions in which to care for the sick and injured unless they are also distinctly educational institutions. Their excellence in respect to the diagnosis and treatment of diseases, will depend directly on the extent to which they fulfill all their educational functions. Already most hospitals are engaged in the education of nurses; many have interns, and a smaller number provide teaching facilities for medical students. An increasing number are now providing graduate teaching facilities for general practitioners as well as special residencies for those who are preparing themselves for the practice of specialties. The hospitals may, to a still larger extent, become educational centers where the physicians of the community or county may meet for clinical conferences or special clinics. Any or all of these various forms of instruction are bound to react in an improved knowledge and skill on the part of the attending staffs of the hospitals. Many of the hospitals, also, are even now performing an additional service in the education of their patients in matters pertaining to personal health and hygienic living, while others, through their social service departments, are carrying health instruction to the homes of those who have previously been patients in either the hospital or its out-patient department. Hospitals which are fulfilling their educational functions are also most ready to receive and take advantage of the new ideas or methods which will come to them from their outside contacts.

As there has been great progress in both general and medical education; as an increasing knowledge in regard to the etiology, diagnosis and treatment of diseases is being placed at the disposal of physicians, so also—it is safe to predict—there will be a great development educationally in the hospitals of this country within comparatively few years. While the training of nurses and interns constitutes only a small portion of the great service ultimately to be rendered, these perhaps constitute the entering wedge, after which other educational measures will rapidly follow. The hospitals will

then be in position to render a much greater service to the public in their respective communities.

DESIRABLE CONDITIONS FOR THE TRAINING OF INTERNS

The conditions in general hospitals which make them desirable to recent graduates seeking intern training are as follows:

1. The hospitals should be large enough to provide

(a) A fairly large supply of patients, both acute and chronic, representing all the common diseases in medicine, surgery and obstetrics, as well as a fair number of patients in each of the clinical specialties.

(b) A rotating service in which the intern will render services in the departments of medicine, surgery and obstetrics and perhaps also in the laboratory. Sometimes the third service is in the specialties including obstetrics.

(c) In some of the larger hospitals the services are graded and progressive, each serving as junior and senior, or, in still larger hospitals, as second junior, first junior, second senior and first senior. Some hospitals have the services so arranged, also, that the terms of service expire at different times of the year. In this way there is always a certain number of experienced interns. Another advantage is that the senior interns can help a great deal in the supervision of the work of the junior interns. This is of benefit to both intern and patient.

2. The hospital should be liberally equipped with

(a) A serviceable laboratory wherein examinations can be made of urine and blood as well as histological examinations, and the more delicate laboratory tests such as the Wasserman, basal-metabolism, blood chemistry, etc.

(b) There should be a satisfactory X-ray laboratory sufficiently well equipped for both diagnostic and therapeutic work in which the intern can learn not only the technique but also become skilled in the interpretation of X-ray plates.

(c) Both these laboratories should function actively with expert supervisors in charge. A competent pathologist, who has had a complete training in medicine, should be in charge of the clinical laboratory and should also make the post-mortem examinations, which should be attended by the interns. These post-mortems, especially where they are a part of the so-called clinical pathological conferences, constitute one of the best educational factors in the intern's training. The extent to which necropsies are made of service in the hospital is usually indicated by a high percentage of necropsies as compared with deaths occurring in the hospital. The pathological conferences are usually of greater interest and educational value if they are attended by both staff members and interns.

3. Of most importance to the intern, however, is an attending staff of physicians who are individually interested in the education and welfare of the interns and who will give them the opportunity to write histories and examine patients and prevent their time being wasted in duties belonging more to orderlies and nurses. The closer the sympathy and fellowship between the members of the staff and the interns the more benefit there will be to all parties concerned—the staff, the interns, the patients. Staff members who hold conferences with the interns soon find how many valuable suggestions and hints they personally receive from the interns themselves. Indeed, the intern brings into the hospital suggestions of newer methods and more recent ideas which he gives in exchange for opportunities to develop skill in history writing, physical diagnosis and in the clinical observation and care of patients.

In some hospitals where advanced internships are provided, or where graduate medical students are admitted, there is a danger that the interns' training may be lost sight of. In such hospitals a special committee should be established or some routine arrangement made to provide for the intern's education.

NITROUS OXID-OXYGEN IN HOSPITAL OBSTETRICS

C. Henry Davis, M. D., F. A. C. S., Milwaukee, Wis.

Among primitive peoples the care of a woman during childbirth was a neighborly act, or one of charity as it would often be termed today. Nevertheless the primitive woman did not have her babies in her usual habitat, but, whenever possible, in the seclusion of a virgin forest, preferably near a stream. If the labor occurred during the winter season she used a freshly constructed shelter, and here, too, care was taken to avoid the use of boughs or skins which had been in contact with the daily life of man. Intuitively, or more probably from sad experience, primitive woman took precautions against the common causes of sepsis.

Hospitals are rather a late product of civilization and it has been well said that they are the expressions of a kindly feeling of the fortunate for the unfortunate. But the early hospitals were not an unmixed blessing; nothing was known of sepsis, and cross infections were the rule. The father of obstetrical anesthesia, James Y. Simpson, was ignorant of the cause of sepsis, but collected a large amount of statistical data showing the dangers of hospitalization in the middle of the nineteenth century. Prior to the time of Holmes and Semmelweis, the history of hospital maternities was to a great extent one of childbed fever. Nor were the epidemics confined to the hospitals, for in 1786 there was an outbreak on the plains of Lombardy from which not a single puerpera recovered.

Conditions have changed. Aseptic methods have made the modern hospital maternity the safest place for a woman to be confined. Here, and here only, is it possible to have the necessary equipment and assistance to meet the various complications which may arise. That women more and more appreciate this fact is shown in the rapid increase in the percentage of hospital deliveries in all cities.

Professor Simpson would undoubtedly compliment most of you on the splendid records you have made in the general care of your obstetrical patients, but in one particular, which he thought important, he would find many of you sadly lacking. Simpson first used ether in obstetrics on the night of January 19, 1847, and from that time until his death continued to employ an anesthetic in his delivery of women. From records which have come down it is certain that this anesthesia was not limited to the last few minutes of labor but often was continued intermittently for several hours; in at least one case, for over thirteen hours.

In April, 1848, Simpson wrote: "Shortly after anesthesia began to be employed in surgery, its alleged beneficial effects were keenly discussed among members of the profession; and principally, or entirely, upon the results of individual or isolated cases. Some eagerly and stoutly doubted, *in toto*, the possibility of making operations painless; and many who admitted its possibility, denied altogether its propriety, on the alleged grounds of its increasing the general subsequent dangers of the patient, inducing a variety of alleged morbid states and lesions, and adding, on the whole, to the fatality of operative surgery."

It is hard for you and me to imagine a surgical hospital without anesthesia, but from a letter which Simpson received in 1855 from a victim of such surgery we get this vivid picture: "Of the agony it occasioned, I will say nothing. Suffering so great as I underwent cannot be expressed in words, and thus fortunately cannot be recalled. The particular pangs are now forgotten; but the black whirlwind of emotion, the horror of great darkness, and the sense of desertion by God and man, bordering close upon despair, which swept through my mind and overwhelmed my heart, I can never forget, however gladly I would do so." In every hospital some provision is now made for anesthesia during surgical operations, whether it is local or general. Anesthetists with more or less experience are available for the poor as well as for those in better circumstances.

Obstetrical anesthesia and analgesia was started within a few months after the first use in surgery but for a number of reasons its development did not keep pace with surgical anesthesia. A letter written by Simpson in August, 1848, lists the following objections then raised by his American contemporary, Professor Meigs, of Philadelphia:

"1. You object to anesthesia in deliveries requiring 'chirurgical intervention,' and especially in forceps operations, on the ground that the sensations of the patient afford us our best aid for the introduction of the instrument."

"2. You object to anesthesia in natural labours, because you hold that the pain of natural labour should not be annulled, and that it is calculated to promote the safety of the mother."

"3. You object to anesthesia in natural labour, because you deem the pain of natural labour a 'physiological pain.'"

"4. You object to anaesthesia in labour, because the mother, in escaping by it from the 'pangs and agonies of labour,' may, in a few rare cases, be thus made to encounter danger to her own life."

"5. You object to anaesthesia in labour, because you do not consider that the mother encounters danger to her health or life from the endurance of the pains."

After answering these objections, in his letter to Professor Meigs, Simpson makes this significant statement: "The ordinary obstetric practioner has little or no power, except over the relief, or the perpetuation (according as he may choose it), of the sufferings of his own immediate patients. But you and I, as obstetrical teachers, may, through our pupils, have the power of relieving or of continuing the sufferings of whole communities. If, perchance, you persist for some years longer in your present opinion, it will have the effect of inflicting a large amount of what I conscientiously believe, and know, to be altogether unnecessary agony and suffering upon thousands of our fellow beings." May not this statement apply to many hospitals today?

Childbirth is a normal function of women, and consequently thought of as physiological. Physiological processes do not cause pain so long as the process continues natural, therefore it has been claimed that the majority of women really do not suffer during childbirth; they merely think they are feeling pain. But if this is the case, why have the contractions of the uterus during labor been called labor pains from antiquity instead of some less suggestive term? Everyone who thinks must admit that even natural labor is a more or less painful process; when complicated the pain may be as extreme as in many surgical operations. The intermittent type of pain is the redeeming feature which has made labor as bearable as it is.

There can be no real controversy today as to the desirability of relieving labor pain, provided, of course, that the relief may be had with safety. Those of us who have given close attention to this problem are agreed that a high degree of relief is possible without any increase of dangers to mother or child. On the other hand, we must admit that there is abundant evidence that the introduction of

anesthesia led, even in the early years of its use, to a considerable amount of meddlesome midwifery. This has to some degree mitigated the benefits.

Simpson introduced ether in obstetrics, but, following his discovery of the more powerful effects of chloroform, discontinued its use. There were many objections to obstetrical anesthesia during the next few years, but when Sir James Clark gave chloroform to Queen Victoria at the birth of the late Prince Leopold in 1853, Simpson's victory was complete and chloroform *a-la reine* became a recognized procedure. When, on the 6th of May, 1870, Simpson passed to his reward, chloroform was so generally used in Scotland and England in both surgery and obstetrics that only recently have other anesthetics been considered.

It was early recognized that the use of chloroform in surgery might carry an element of danger but until within the last fifteen years it was generally believed that the pregnant woman for some reason had a special tolerance for it. In other papers, the writer has given both clinical and experimental reasons for discarding chloroform in obstetrics.

The present measures for pain relief must be divided into those which are applicable in the first stage of labor and those which may be used during the second stage. Inhalation anesthetics may be used late in the first stage, but when the pain begins early we must rely on drugs administered hypodermically, by mouth or rectum. The drug chosen may be one of the opiates, used alone or combined with hyoscin and given hypodermically, or chloral hydrate by mouth or rectally. During the past two years I have given the morphine-hyoscin combination to 150 patients without experiencing the serious difficulties sometimes ascribed to these drugs. In the long first stage it has been very evident that the woman went through the long hours of dilatation with less fatigue and nervous exhaustion, and approached the second stage in a more normal condition than if the first stage had been without relief. The dosage usually employed is morphine grs. 1/6 and hyoscin grs. 1/100 in the hypodermic, giving half when the contractions become painful and the other half when indicated. In case the first stage pains are very severe the full dose is sometimes given at once. By the time the effects of the hypodermic begin to wear off the dilatation is usually about complete and the intermittent nitrous oxid-oxygen analgesia is started.

Nitrous oxid is the one anesthetic, thoroughly tested, which will relieve the severe pain of labor without at the same time diminishing the strength and frequency of the contractions. Ethylene is still in the experimental stage. Both ether and chloroform cause uterine relaxation to such a degree that when either is used it may be noted with the first few contractions. To a lesser degree this is also true of

ethylene. The present day advocates of chloroform admit the necessity of giving small doses of pituitrin to keep up the uterine activity, a combination which we know is dangerous for the infant.

Today nitrous oxid is generally recognized as the most satisfactory obstetrical *analgesic*. There are several hospitals which have records of satisfactory results in more than 3,000 deliveries. The cost of the gas and its administration is still the one serious problem for most of us. When your President invited me to present this subject my mind went back to two incidents in the early development of nitrous oxid analgesia. In the autumn of 1909, he warned us that gas was expensive and that the hospital could not afford to have the interns use it for house cases. Six years later he sent our obstetrical intern to the delivery room at 2 a. m. to give it to a noisy Jewess who was making the night miserable for everyone on that side of the hospital.

Obstetrical patients are usually thought of by hospital authorities as being particularly noisy. In many institutions the problem of noise is met by refusing to take any of the so-called normal cases, in others attempts have been made to construct sound-proof crying rooms. Both methods are fundamentally wrong. If any class of patients deserve adequate hospital facilities it is the women who bear children. A sound-proof crying room makes one think of a dungeon, and it is today equally barbaric. In my student days women were expected to cry during labor. The anesthetic was administered only during the last few pains and many times not at all. During the past ten years I may have failed at times to afford complete relief of pain, but, with rare exceptions, my patients have not disturbed others, and then only for a few minutes.

A hospital may be the expression of a kindly feeling of the fortunate for the unfortunate, but the management is forced at times to think in terms of dollars and cents. It is, therefore, only natural that a hospital superintendent will think twice before adding anything more to the big overhead of his institution. On the other hand, it is the duty of a hospital to do everything possible for the safety and comfort of its patient.

The costs of administering nitrous oxid and oxygen or ethylene-oxygen to obstetrical patients may be divided into equipment, anesthetic and anesthetist. For economical use, a large machine with some sort of reducing valve and automatic regulator is needed. The operation of some machines is made very expensive due to poor connections and a resulting loss of gas. This must always be kept in mind. By purchasing gases in large cylinders the cost is lowered, provided of course leaks are prevented. The average cost of the gas per patient should not exceed five dollars. The anesthetist is the big item in figuring costs.

We are not able to give the average number of hours an anesthetist must administer the gas during labor but believe it to be two or three times that required for a surgical patient. In addition, at least half of this work is during the night hours when most anesthetists choose to be in bed. This combination of circumstances has made it necessary for physician anesthetists to charge a fee which is prohibitive for the average obstetrical patient. Nevertheless, there is no reason why a hospital should provide an anesthetist for the drunken bum brought in from the street and then fail to provide an equal service to the woman in the delivery room.

It is not our purpose to enter into the controversy regarding nurse anesthetists other than to state that as a general proposition nurses make excellent anesthetists when properly trained. Legislation which prevents them from administering anesthetics is short-sighted and most unfortunate. It is only by training all our nurses to give obstetrical analgesia that its costs can be kept within reach of the average woman. In a few states this would now be illegal.

Throughout the ages women have believed the pain of labor something which they must bear, and with fortitude they endured it. Today we appreciate that even the pain of labor causes a considerable degree of surgical shock and that the convalescence of the women who are left to endure severe pain is delayed. Many women are so impressed by the horror of it that they do their best to prevent future pregnancies; still others are nervous wrecks for weeks or months. It is the duty of every hospital with a maternity to make adequate provisions for the relief of labor pain. This can be done without extra cost by having the analgesia administered by the interns and nurses. In our early use of nitrous oxid analgesia it was administered for the most part by the interns, the patients paying only for the gas used. With the present scarcity of interns, especially in the smaller hospitals, we must rely on the nurses. But why not give every nurse on the obstetrical service a training in obstetrical analgesia and the brief, light anesthesia needed for a normal delivery? The regular anesthetist would then be used only for the operative deliveries. This would materially reduce the present high cost of relieving labor pain and lessen the requirements on the regular anesthetists. When nurses so trained go into private practice they would be able to give this additional service when their patients were in labor and thus prove of additional value to the physician who still must handle deliveries in the home.

The technic of administering nitrous oxid-oxygen analgesia is not difficult and may be mastered within a short time by anyone who will study the problem. Some patients are less susceptible to the gas than others and require several more inhalations to produce the desired analgesia. Again, there is a marked difference in the type

of the contractions. Some come on slowly, others very quickly and violently. In every case the patient must inhale enough gas to produce analgesia before the painful stage of the contraction is reached, otherwise she may be completely anesthetised and yet on waking will complain of the pain, due to the memory of it. When a satisfactory analgesia cannot be maintained with nitrous oxid-oxygen a little ether should be added to the mixture. This may be done with any of the modern gas machines. Ethylene-oxygen causes a deeper analgesia and more relaxation. It also tends to slow labor.

Since there are still a few who believe, with Professor Meigs, that the anesthetic may be dangerous to the mother or child, a brief summary will be given of data recently presented by Dr. Danforth of Evanston and myself before the American Medical Association. Neither of us know of a single case where nitrous oxid-oxygen analgesia has proved dangerous to the mother or the infant in utero. We do not advocate continuous analgesia or long anesthesia with nitrous oxid, since either will tend to reduce the oxygen content of the maternal blood and therefore increase any existing asphyxia of the infant. Our combined infant mortality from all causes, including congenital defects and prematurity, was less than four per cent. As with all who specialize, this series includes a larger number of operative deliveries for pathological conditions than would be met with in ordinary practice, yet the infant mortality is lower than the average, indicating no increased risk from the anesthetic used.

Oxygen has in our hands been of great help in resuscitating babies which were delivered in a state of asphyxia because of true knot of the cord; concealed prolapse of the cord; cord too short or wrapped tightly around the child's neck or body; premature separation of the placenta; excessive birth pressure or any of the other causes of fetal asphyxia. So long as the cord is pulsating, oxygen may be given to the child by giving pure oxygen to the mother; but if the infant requires artificial respiration, we give the oxygen directly by the use of the ordinary nasal inhaler which fits nicely over its mouth and nose. We believe this type of resuscitation superior to any other, since the Sylvester method will not cause injury and the pure oxygen improves the chance of a prompt recovery. Obviously, the use of a tracheal catheter to remove the mucus is an important preliminary in this type of resuscitation, as in all others.

We live in an age of wonderful progress. The dream of yesterday becomes a reality of today. The introduction of scientific methods in the art of medicine has made it possible to discover the cause of most diseases. Scientific obstetrics has made a progress equal to that of any other branch of medicine, but owing to the traditional belief that childbirth is a natural process and does not require any special attention, the majority of civilized women have not availed

themselves of the benefits which may come from strict obstetrical management during the whole period of pregnancy labor and the puerperium.

Today the pain of labor can be relieved. All the severe pain which has left so many women terror stricken for long periods, which has delayed their convalescence and interfered with proper nursing, can and should be eliminated by proper anesthesia. Are you providing such a service in your hospital?

In most hospitals there are three classes of patients. From a few the institution receives a little more than the costs; from others something near the actual cost of maintenance, and all the rest are taken care of at a varying loss to the institution. You try to relieve the pain and discomfort of the surgical patient to as great a degree as possible, and furnish whatever anesthetic is safest for him. May we not ask you to do equally well for the woman who undergoes the tortures of labor in order that she may perpetuate the race? Nitrous oxid or ethylene gas and oxygen are necessary in giving the greatest relief in labor. They should be in every delivery room and at a cost which is not prohibitive. The anesthetic should be chosen for the operation and the peculiar needs of the patient. Nitrous oxid does not slow the labor and is therefore of greatest value as an intermittent analgesic. Ether is still used when a deep anesthesia is required. The margin of safety with ethylene appears to be greater than with nitrous oxid. If animal experiments prove that it does not lessen the oxygen content of the maternal blood, it may eventually become the anesthetic of choice in obstetrics.

CHILD BIRTH.

Progress is a slogan since woman has the vote,
But with clubs and lobbies she still may darn or mend a coat,
You talk of birth control until you're tired and blue
But woman loves a baby and wants to have one too.

Prehistoric woman alone mid wood and rushing stream,
Gave birth unaided, or passed into the everlasting dream.
A physiological process it is, or ought to be,
But with all the civilized races complications we see.

The present day maternity with wards and private room,
Kept clean as virgin forest, is the mother's greatest boon.
Prenatal care, equipment, nurses, aseptic technic we say!
And the "Oy, Oy" we used to hear is "more, more gas" today.

PRESIDENT BACON: Before taking up the last number on our program, I wish to say that these beautiful flowers that have decorated the table this week have been given by the good ladies of

Milwaukee (applause); and I would like to have a rising vote of thanks to the ladies at this time.

(The members all rose.)

PRESIDENT BACON: We have with us today the pioneer in physiotherapy, Dr. J. H. Kellogg, Superintendent of the Battle Creek Sanitarium, Battle Creek, Mich. I consider Dr. Kellogg one of the best authorities in this country on this subject, and he will speak to us at this time.

SHOULD GENERAL HOSPITALS ESTABLISH DEPARTMENTS FOR PHYSIOTHERAPY?

By John Harvey Kellogg, M. D., Supt. Battle Creek Sanitarium

A department devoted to physiotherapy may not be needed by every hospital, but every hospital needs physiotherapy. Every hospital does not need a dining-room, but every hospital needs foods for its patients and a dietitian or nurses and physicians trained in the principles of nutrition and scientific feeding. So every hospital needs physiotherapy and a physiotherapist.

Within the last half century a most remarkable evolution, one may even say revolution, has occurred in methods of dealing with the sick. The marvelous light thrown upon life processes, normal and pathological, by the revelations of physiology, bacteriology and physiologic chemistry and the exposures of the fallacies of old therapeutic notions and the inertness or inadequacy of the great majority of drugs made by experimental pharmacology and clinical observation, checked up by modern instruments of precision, have so completely transformed the practice of medicine that the war of the pathies ceased years ago for lack of anything of interest to war about. Everybody knows, nowadays, that sick people are not cured by either big pills or little pills, but by the *vis medicatrix naturae*. As Dietl, a famous disciple of the great Rokitanski, declared, "Nature creates and maintains, therefore she must be able to heal." And, as the late Dr. Winternitz, the father of scientific hydrotherapy, insisted, "It is the blood that heals." The ancients knew this, and recognized that "The blood is the life;" but the great cloud of ignorance and superstition which submerged the world during the "Dark Ages" obscured this vitally important truth which modern physiology has brought out again and made to shine with greater luster than ever. We have a very few specific drugs which cure by destroying parasites of some sort; but with very few exceptions, the agents which are really potent in combating disease are those which modify the blood or the blood supply, and these agents are almost wholly those which belong to the domain of physiotherapy, which includes all therapeutic measures other than drugs and psychic influences.

The modern general hospital is supposed to be a place where the sick may receive the benefit of every curative method and resource recognized by scientific medicine, and there seems to be no good reason why the modern general hospital should not realize this ideal in its equipment and the personnel of its staff of physicians and nurses.

If the question of expense is raised, the objection is easily answered by the fact that for an efficient application of physiotherapy very little expensive or special equipment is actually required. The great essentials of physiotherapy, in addition to diet, are air and water—at different temperatures—light and exercise—active and passive. These most potent of all means of modifying metabolism and nutrition may be applied in a thoroughly efficient manner and with most satisfactory results without the use of very expensive or elaborate apparatus. The most important part of a physiotherapeutic equipment is a thorough theoretical and practical knowledge of physiotherapy. With this, great results may be attained with little or no special equipment; without it, the most elaborate equipment is useless. Not so very long ago, I happened to visit a large hospital which possessed a most elaborate and up-to-date physiotherapeutic outfit. The hydriatic equipment was particularly elaborate and expensive. On being introduced to the head nurse, I was at once beset with questions about hydrotherapy. Said the nurse, "Do tell us how to use hydrotherapy. The doctors send us down patients every day with a prescription for hydrotherapy, but they don't tell us what to do." The doctors were not to be greatly blamed, for does not the learned Osler say many times over in his great work on practice, "If the measures above indicated fail, try hydrotherapy." The teaching of physiotherapy in our medical schools is still so inadequate and inefficient that the student has no opportunity to become sufficiently familiar with the technic to be able to make an intelligible prescription. Although now recognized as the chief part of therapeutics, it receives the least attention. Very often the teachers are themselves little familiar with the subject. The late Professor Brieger, the eminent German chemist, who held his place on the faculty of the Imperial Medical School of Berlin as professor of physiotherapy, told me when he got his appointment, he went to Kneipp's Water Cure for three weeks to learn hydrotherapy. This neglect of physiological therapeutics by our medical schools is without doubt responsible for the existence of osteopathy, so-called chiropractic, and a dozen other medical cults.

Water, as a means of producing thermic impressions and thereby influencing the vasomotor nerves and centers, is the most potent as well as the most versatile of all curative agents. By its proper use, even with such simple means as a wet rag, it is possible to control

almost at will the blood circulation of any vital organ, and thereby to produce therapeutic effects quite surprising to those who are not familiar with the results obtainable with this wonderful agent when skillfully applied.

A room or series of rooms fitted up with expensive appliances makes a fine show in a hospital and produces a great impression upon visitors, and may be made of real and great service; but the thing really needed in the general hospital is such an intimate acquaintance with the resources of physiotherapy as will in large measure eliminate the use of hypnotic drugs to produce sleep, of medicines and mineral waters to stimulate delinquent colons, and even of drugs for relief of pain.

When I was a student at old Bellevue fifty years ago, I one day heard two of the interns discussing the treatment of delirium tremens, cases of which were very numerous at Bellevue in those days of cheap whisky. The regulation treatment was confinement in a cell and opium and chloral in massive doses. Said one of the interns, "I often find 'em dead in the morning." "Yes," said the other, "I slip one every now and then, but that's the only way to keep them quiet." A year or two later, when I encountered my first case of acute alcoholic mania, I wrapped the patient up in a wet sheet to keep him in bed and discovered that the neutral pack not only kept him still but sent him off to sleep.

In discussing a paper which I read some years ago before a very active medical society, the superintendent of a large state hospital for the insane, the late Dr. Edwards, stated that in recently comparing their present use of chloral and other hypnotic drugs with their practice twenty years before, they had found that with 2,000 patients they were now using less of such drugs in a year than they formerly used with 600 patients every week. He added, "If a patient has insomnia, we just put a wet rag on somewhere and he goes right off to sleep." The effective use of water to produce sleep is not quite so easy as that, but the neutral bath and allied measures are so remarkably efficient in producing sleep that the use of sleep producing drugs is rapidly becoming obsolete in the leading hospitals for the insane in this country as well as in France and in other European countries where they have been long employed.

The analgesic effects of heat are among the most remarkable of all therapeutic effects. Heat kills pains. Just how, nobody knows—as no one has yet explained the action of opium or of other pain-relieving drugs. Of course, heat is not a complete substitute for opiates, but it will relieve at least nine-tenths of all the pains for relief of which opiates are commonly given, and has the great advantage of being wholly free from the numerous dangers and disadvantages of opiates. Every hospital should be supplied with conveniences for

quickly preparing fomentations, with thermophores and electric photophores, as well as hot water bags and other efficient means of applying heat. These simple and inexpensive appliances are far more important than an elaborately appointed department filled with expensive apparatus.

Nevertheless, the physiotherapy department, with specially trained persons in charge, is just as essential for the complete equipment of a modern hospital as is an operating room, an examining room or a laboratory. In such a department should be found appliances for the efficient use of hydrotherapy, thermotherapy, phototherapy, mechano-therapy, electricity, corrective gymnastics, automatic exercise and indoor and outdoor gymnasiums. For many years I have made a close study of appliances adapted to physiotherapy and have tested every new apparatus that has become known to me and have selected out of a great number of more or less useful appliances those which have proven to be of real service. Chief among these I may mention the following, all of which are in use at the Battle Creek Sanitarium, most of them having been in practical use for many years:

Hydriatic Apparatus.—The douche is useful but by no means the most essential part of a hydrotherapy outfit, although so much emphasis has been given to douche apparatus in recent years that in the minds of many it seems to be regarded as the one thing needful for a complete equipment. Many of the newer hospitals are supplied with expensive douche appliances which are used scarcely more often than are the fire extinguishers. The fact is, the douche is an appliance that requires more skill in its use and is less frequently called for in a general hospital than a large number of other much simpler and far less expensive appliances, such as sitz, leg, arm and foot baths, and full bath tubs adapted to the neutral bath. The simple shower and spray bath with a good thermostat will satisfactorily supply the needs of the ordinary hospital. The first douche apparatus ever used in a hospital consisted of a box with a perforated bottom which was supported over the patient while water was poured in. This mother of douches, used in a hospital in Edinburgh 200 years ago, though crude, was most efficient in combating fever.

So long as the idea prevails that an expensive douche apparatus is a whole hydrotherapeutic outfit, hydrotherapy will make little progress in hospital practice. The douche is exceedingly useful in certain classes of hospitals, particularly institutions for the insane and those that are especially devoted to nervous diseases and non-surgical or gastro-intestinal disorders. The investments required need not be great. A simple appliance which may be attached to a wall slab will accomplish everything that can be done with the most elaborate and expensive apparatus.

Phototherapy and Aerotherapy.—Light supplies not only heat but other forms of radiant energy which are highly potent vital stimulants. When light rays fall upon the skin the chemical rays act upon the superficial layers, producing, when very intense or long continued, an erythema. The luminous rays, however, penetrate deeper. As they penetrate an opaque substance, like human flesh, they meet with resistance and are converted into the longer, infra-red or heat rays, which penetrate still farther. The electric light is thus a most efficient means of applying heat.

A beam of light contains all the different forms of heat rays, luminous and non-luminous, from infra-red to the top of the gamut. This is clearly shown by the spectrum. However, it is to be remembered that when luminous rays enter the body they are quickly converted into the infra-red, so that all these rays in practical use become infra-red, whether originally luminous or non-luminous.

The most valuable of all our phototherapeutic resources is sunlight.

Every general hospital should be liberally equipped with sun porches or an outdoor gymnasium for the warm season and sun rooms for use in cold weather.

I have made use of the sun bath extensively for more than forty years, and have found it invaluable not only as a general vital stimulant but as a means of promoting the healing of indolent wounds.

It is doubtless true, as Rollier has observed, that all the benefits of sun bathing are not to be attributed to the actinic rays or to the effects of light, but are, in part, due to the thermic effects produced by contact with cool air. He finds, for example, that sun baths are more efficient in the early part of the day, when the air is cool, than in the middle of the day, when the air has become heated. In the use of sun baths in the outdoor gymnasium, I have, for many years, made use of the cool shower bath as a means of combating the depressing effects of excessive heat during hot weather. By alternating exposure to the sun's rays with short, cool baths, most powerful tonic effects may be produced.

Our long cold season—nearly half a year—with the large proportion of cloudy days, greatly lessens the value of sunlight in practical therapeutics; but, fortunately, nearly all the advantages of sunlight may be obtained by an efficient use of the electric light. For local effects, the photophore, in which the use of the incandescent lamp is a source of light and heat, and the arc light, are most useful and efficient. Every hospital should be supplied with a number of these appliances, which are now available in forms adapted to all sorts of medical and surgical cases in which the application of heat or light is desirable.

To obtain the general effects of light when sunlight is not available is a somewhat more difficult problem. By combining arc lights with Cooper-Hewitt tubes and the quartz light, all of the effects of sunlight may be readily secured. In a cabinet which I have in use and which, for convenience, we call "the sunlight bath," there are six 50-ampere arc lights, two Cooper-Hewitt tubes and one quartz lamp. By this combination effects superior to those of the most intense sunlight are obtainable. It is possible to produce in ten minutes a slight degree of erythema when this is desirable.

The electric light is more than a complete substitute for sunlight for the reason that in passing through the upper atmosphere, the shorter ultra-violet rays, and the longer infra-red rays, are almost entirely absorbed by oxygen, which is thereby converted into ozone.

The electric light in its various forms must be regarded as a very essential part of every hospital. By the use of this artificial light, all the benefits of sunshine may be obtained, and at times and seasons when sunlight is not available.

Electrotherapy, while less useful than light as a therapeutic means, is nevertheless a most important feature of a physiotherapeutic hospital outfit. Unfortunately, electrotherapy has always been more or less in disrepute. This highly useful agent has been discredited by the extravagant claims made for it by so-called electrotherapeutics and by the attempt to make it a panacea, whereas its useful application is really limited to certain classes of patients. It is true that electricity is useful as a general tonic—but for this purpose cold water, cold air and sunshine are so much more potent and practical that its value is overshadowed.

The most important use of electricity in connection with a hospital, outside of its diagnostic uses, is as a means of passive exercise. Two purposes are served, first, the development of weak or paralyzed muscles; and, second, stimulation of tissue change or metabolism. There is a great demand for the use of electricity for both of these purposes in hospital practice. Improved muscular development is required not only in cases of paralysis, but in a great number of cases in which the muscles are weak because of disuse through sedentary life, bad posture, etc.

As a means of increasing metabolic activity, suitable applications of electricity may be advantageously made in a very large number of hospital cases. We are, I believe, prone to forget that the confinement of a patient in bed produces nutritive disturbances which ought to be combated by suitable measures. Modern metabolism studies are also showing that there is a very considerable number of persons whose metabolic rate is below normal and requires stimulation. For all these cases, electricity is a most valuable resource. The best form

of electrical current for this purpose is the sinusoidal. I had the good fortune to discover the value of this current as a mode of passive exercise nearly forty years ago. I was carrying on a series of experiments with electrical currents from all available sources and happened upon a form of current which produced vigorous and painless muscular contractions. I saw at once the value of this current for automatically producing muscular exercise and have made extensive use of it ever since. A few years later, d'Arsonval, of Paris, in experimenting with high frequency currents, discovered a form of current which produced painless contractions and which, on investigation, I found to be identical in form with the current of which I had made use. The current is known as the sinusoidal current because of its form. Its painlessness is due to the fact that changes in the direction of the current occur at zero potential. In the faradic current the change of direction occurs at the point of highest intensity.

The most efficient forms of the sinusoidal current for influencing metabolism are the sinusoidal bath—by which the metabolic rate may be easily doubled without the slightest discomfort to the patient—and the automatic exercise chair, by which the metabolic rate may be increased to any degree desired—from 100 per cent to 600 or 800 per cent.

Another electrical appliance of proven value is the diathermy, or thermo-penetration apparatus, a high tension apparatus which supplies the current which is practically identical with the so-called wireless current, but of much lower tension. In the passage of this current through the body, the electrical energy is converted into heat and thus by this means heat may be applied to any internal viscus with the same exactness as that with which heat may be applied by other means to the surface of the body. This agent is found exceedingly useful in making heat applications to deep-seated organs such as the lungs or heart and large nerve trunks and certain joints, and produces highly valuable results.

No general hospital should be regarded as properly equipped without these useful electrical appliances.

Mechanotherapy.—Mechanotherapy, like electrotherapy, has been greatly discredited by the excessive claims made for it in the attempt of the partisans of this method to accomplish by mechanical means results which are much more efficiently obtained by hydrotherapy or electrotherapy. After careful study of all the various forms of apparatus which have been produced in this country and in Europe for use in mechanotherapy, and after an experience of more than forty years with this line of therapeutics, I am thoroughly confirmed in the opinion that certain results may be accomplished more efficiently by suitable mechanical appliances than by any other means and that

at least a few of these appliances might be advantageously added to the equipment of the average general hospital.

Perhaps the most useful of these appliances are means for applying a kneading movement to various parts. By means of a simple device, mechanical kneading movements may be applied to any part of the body, and the movements may be graduated from the most gentle application to the most vigorous and thoroughgoing. Applications of this sort are highly valuable for patients subjected to long confinement to bed as the result of traumatism or after serious operations, in cases of paralysis and in the wasting of muscles which results from chronic joint disease. Mechanical kneading is also most useful in connection with the rest cure, in convalescing cases and in all cases in which it is desirable to promote local or general nutrition. Mechanical massage, as well as manual, has the advantage that it promotes anabolism, or constructive metabolism, without materially increasing catabolism, or destructive tissue change. Exercise promotes constructive metabolism, but at the same time enormously increases destructive metabolism. Hence, in cases in which it is desirable to promote tissue building and an increase of fat and blood, passive exercise and massage render invaluable service. The average patient cannot afford to pay for the services of a trained manipulator. This opens a wide field for the mechanical manipulator, which is in practical use for securing the general systemic effects of massage fully as thoroughgoing and efficient as is manual massage. Mechanical massage has the advantage that it may be applied by the patient himself or by an ordinary attendant and thus may be utilized in a great number of cases which might not be able to afford the expense of manual massage.

A large general hospital should provide a variety of mechanical appliances for administering passive movements for the mobilization of the joints and appliances for promoting exercise, such as pulley weights, the riding horse, the stationary bicycle, rowing machines, etc. For the efficient use of exercise as a therapeutic measure, a suitable means should be provided for obtaining accurate information regarding the patient's muscular system. A thoroughly scientific method requires the testing of the strength of each of the larger groups of muscles and comparison of the results with normal standards. This is best done by making a graph, which will show at a glance the defective groups of muscles and the degree of deficiency in strength. This method, which has been in use at the Battle Creek Sanitarium for nearly forty years, was adopted many years ago by the Government military schools at Annapolis and West Point. Every cadet who enters Annapolis is examined by this method and required to bring up the strength of all the weak muscles to the 100

per cent line before he is allowed to spend any time watching the ball games and other competitive sports.

Attention must be given, also, to posture. This applies to bed patients as well as ambulant cases. The study of the outlines of the body are often highly suggestive of deeply-seated morbid conditions to which attention should be given. For example, a round back and a protruding abdomen always indicate a low-standing diaphragm. Since the pericardium is attached to the diaphragm, when the diaphragm is dragged down, the heart is dragged down with it, and with every heart beat the heart muscle is compelled to do, in addition to its normal work, a large amount of unnecessary and unnatural work in lifting the diaphragm and the heavy viscera which are attached to its under surface. These patients with flat chests, round backs and prominent bellies, have no endurance when they are on their feet and quickly get out of breath when they undertake exercise of any sort, because of the extra work required of the heart. These patients are also very likely to suffer from the strain upon the sacro-iliac and intervertebral articulations, especially of the lumbar region, which is the natural consequence of a position in sitting or lying which puts these joints under undue strains. These strains often give rise to severe backache, the cause of which is frequently not suspected. Hospital patients often suffer greatly from this cause. Such patients may be almost instantly relieved by simply propping up the hollow of the back with sandbags or cushions. The backs of seats and rolling chairs provided for convalescing patients in hospitals as well as the seats in ordinary use in homes, churches, theaters and elsewhere, almost invariably ignore the natural requirements of the contour of the body and, affording no support for the lower part of the back, compel the feeble patient to crumple up in order to secure the support which his lack of strength requires.

The shadowgraph affords a convenient means for the study of the outlines of the body, and is an aid to diagnosis, and is especially useful as a means of demonstrating to the patient himself the necessity for observing correct posture in sitting and lying as well as in exercise and work.

The time allowed this paper is too brief to admit anything more than a very cursory review of the subject. As a matter of fact, from the writer's standpoint, physiotherapy is by far the greater part of therapy, and hence methods and appliances for employing the various physical agents by which the body functions may be influenced should constitute the major part of the hospital equipment and organization. I see no reason why the general hospital should not provide its patients with the same advantages as are afforded by the up-to-date sanitarium.

In conclusion of this very incomplete paper, I will call attention to what may be termed prophylactic physiotherapy, which I consider as important as any, if not the most important of all. This consists in the systematic education of the patient, while under treatment, in right habits of living. The majority of patients who visit the general hospital are brought there directly or indirectly as the result of wrong habits of life. Most chronic ailments are the result of errors in eating, neglect of exercise and other infractions of the rules of health, which, if continued, will bring the patient back or take him to some other hospital, and will ultimately prematurely end his life. While the medical or surgical care of the patient must, of course, be the first and principal aim of the hospital, the proper education of the patient during the period of his hospitalization, so that he may be so far as possible insured against the necessity of again seeking hospital care, should be made a regular part of the work. In general, patients are eager to learn what they may do to prevent a return of their troubles, and the patient's program usually gives him ample time for receiving such instruction as may be of incalculable value to him. The opportunity is one which should not be neglected. Every general hospital ought to have associated with its physiotherapy department a health director capable of instructing patients in an entertaining and convincing way, so that when the sick man leaves the hospital he may carry home with him not only a body which has been improved by the treatment which he has received, but, through the teaching and training which have been given him, a new set of habits through which he may not only maintain the improvement made, but may for a long time afterwards continue to improve in bodily fitness and efficiency. The hospital has a wonderful opportunity for service as an educational factor which should not be neglected. The social welfare service connected with some large hospitals is a beginning in this line which should be developed and expanded until health education and training are everywhere recognized as an essential feature of hospital organization and administration.

Meeting adjourned.

AMERICAN HOSPITAL ASSOCIATION

Twenty-fifth Annual Convention, Milwaukee, Wisconsin, November 2, 1923, 2:30 P. M. President Bacon in the Chair.

GENERAL SESSION AND BUSINESS MEETING.

PRESIDENT BACON: First on the program for this afternoon is the report of election results by the tellers.

The Tellers announce the following count of the votes cast:

Total votes cast, 247 (two ballots were blank).

President—

Mr. E. S. Gilmore.....	242
Mr. Asa S. Bacon.....	2
Dr. M. T. MacEachern.....	1

First Vice-President—

Dr. J. B. Franklin.....	239
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Second Vice-President—

Dr. C. W. Munger.....	240
Miss Emily Loveridge.....	1

Third Vice-President—

Miss Emily Loveridge.....	237
Dr. C. W. Munger.....	1
Dr. H. W. Hersey.....	2

Treasurer—

Mr. Asa S. Bacon.....	239
Dr. Robert J. Wilson.....	2
Miss Alice Thatcher.....	2

Trustees—

Dr. A. K. Haywood.....	241
Miss Alice Thatcher.....	234
Dr. C. C. Burlingame.....	2
Dr. H. K. Mohler.....	2
Dr. A. C. Bachmeyer.....	1
Miss Janet Jones.....	2

(Signed) CLARENCE H. BAUM,
H. E. BISHOP,
JOSEPH PURVIS.

PRESIDENT BACON: We will now have the report of the Committee on Resolutions—Mr. Richard P. Borden, Chairman.

MR. RICHARD P. BORDEN: Four resolutions have been submitted to the Resolutions Committee. The first one which we offer for your consideration, and the one which we think is the most important as affecting the interests of the hospitals, is with regard to the classification of nurses in the public service. In the last Congress a statute was enacted creating a board called the Personnel Classification Board and requiring that board to make classifications of the different types of public employees, fundamentally for use in making up the budget, because according to different classifications the salaries of employees are to be determined. There are several headings in that bill, one of them being professional service, another custodial service, etc. It is reported that the Personnel Classification Board has convened and has determined that the nurses in the public service employ shall not be included in the professional class, and so the Association received a communication requesting that the Association should protest against any classification of nurses other than as belonging to the professional classes. I am frank to say personally that sometimes, of recent years, I have paused to wonder whether or not nurses were governing themselves entirely in accordance with the ethics of a profession. I have come to this conclusion, however; how far you will all agree with me, I do not know—it is that nurses as a whole are distinctly governed by a consideration of their duties as members of an honored profession and that we should not relegate them to any other class because of the activities of a certain few. I think perhaps there is a suspicion that the legal profession occasionally is influenced by considerations of possible wealth. There has been some talk before this convention of doctors who split fees. Of course, I never knew one who did, but presumably there are some; but that does not mean that the medical profession is not a profession. I have even heard of clergymen who heard a call most easily when sounded on a golden trumpet, so the mere fact that occasionally nurses seem to be inclined to consider their own personal advancement especially, I do not think should influence us to believe that as a whole and fundamentally nurses are not conducting their work in life in accordance with the requirements of a noble profession, and so your Committee on Resolutions recommend the adoption of the resolution, which has been published in the bulletin and which I will now read and move the adoption of. I am sorry to say that the language is somewhat involved, because the considerations which the hospitals desired to present from their point of view were many, and we tried to put our reasons for the action which we proposed to take as concisely but as completely as possible; and this is the resolution:

Whereas, it is a recognized and important function of hospitals, of which this Association is the organized representative, to establish

and maintain schools of nursing which shall provide professional, scientific and technical training in methods of caring for the sick and co-operating with the medical profession in preserving health and saving lives, and to constantly endeavor to place nursing service in a condition of highest efficiency, and to that end to represent to women of intelligence and capacity that the education thus offered will enable them to pursue a career of high opportunity and responsibility, carrying with it the honor and respect of all people, and

Whereas, the obligations of a nurse to the patient, to the medical profession and to any public service in which she may engage are such as to require a high sense of professional duty which can not be inculcated by monetary reward, and

Whereas, it is essential to hospitals that such sense of professional obligation shall continue and abide with all nurses in their employ and equally essential to the employment of nurses in any public or private service; now, therefore, be it

Resolved, That the representatives of hospitals in the United States, here assembled in convention of the American Hospital Association, do urge upon all representatives and agencies of our government that nurses, properly accredited as such by duly constituted authorities, shall be recognized as belonging to a profession rather than a trade or occupation; and further

That we do most emphatically protest, on account of our own needs and for the welfare and safety of the people in general, against any rule, regulation, enactment or classification which shall place such nurses in a lower position than that which they have long and universally justly occupied; and be it further

Resolved, That the Executive Secretary be instructed to forward copies of this resolution to the Personnel Classification Board established under Chapter 265 of the Acts of the Sixty-seventh Congress, and to the American Nurses' Association, and, in the event of any attempt to make any classification or to procure any legislation contrary to the spirit and meaning of this resolution, to take such action as the Trustees of this Association may find expedient to inform our representatives in Congress and other persons in authority with regard hereto.

I ask you to note the language of that resolution. We are a convention of the American Hospital Association, including many representatives from people who are not under the laws of the United States, but this particular problem is a domestic problem and should be voted upon only by the members of the Association who are representatives of United States hospitals. I recognize that our Canadian brothers and sisters are equally interested in obtaining a high standard of nursing, but they will recognize it is not for them to try to determine the policy of our government, and so part of the reso-

lution reads that "We, the representatives of the hospitals of the United States, here in convention assembled, do thus resolve," etc., and so I hope that in voting upon this proposition the vote will be confined to representatives of United States hospitals. Mr. President, I move the adoption of that resolution.

Motion seconded.

MR. L. G. REYNOLDS: There is just a bit of a question in my own mind. I scarcely see why we should not make the resolution as large as it can be made and why our delegates from the Dominion of Canada could not vote, recognizing it as a problem absolutely our own. Yet I have heard it rumored in some places that some actions are partially decided by what the neighbors will think, and if it is recognized that this action is from an association covering a territory larger than that of our own border, and that other nations would absolutely agree with us in our effort to keep the nursing classification in that with the professions, I cannot see why it would not have a good effect.

MR. R. P. BORDEN: Well, in the first place, I had a little bit in mind the modesty of our Canadian brothers, their hesitancy in interfering with our affairs, and I thought I might help them out a little bit by suggesting that they might be excused from participating in our troubles. In the second place, anything that has to do with our political government is always subject to the views of politicians, and if it appears on the representation of certain people who may come in and oppose the passage of this resolution, that it was not the United States people that were voting on this, but that a whole bunch of Canadians got into this meeting and tried to put the thing over, why, it might more or less endanger the bill.

MR. JAMES R. MAYS: I heartily approve of the statement just made, because I have been before several committees of Congress and I know that without being at all severe, they do take advantage of small opportunities and make big things of them.

The resolution was unanimously adopted.

MR. R. P. BORDEN: The next resolution recommended for adoption by your committee is understood by all of you, so that no explanation is necessary.

Whereas, the education of the public concerning hospitals and hospital service is an important function of organizations in the hospital field, and

Whereas, leaders in the American Hospital Association have emphasized this education at various conventions, including this Silver Jubilee Conference, and

Whereas, the education of the public has been successfully developed by the observance of National Hospital Day, May 12, under the direction of the National Hospital Day Committee, with

which members of this Association and some 3,500 other hospitals of the United States and Canada have cooperated; be it

Resolved, That the American Hospital Association hereby formally endorses the National Hospital Day movement and earnestly urges all members to cooperate with the National Hospital Day Committee, 537 South Dearborn street, Chicago, in the annual observance of National Hospital Day, May 12.

MR. R. P. BORDEN: I move the adoption of that resolution.

The motion was seconded and unanimously carried.

MR. R. P. BORDEN: The Resolutions Committee has received a draft of a resolution from one of our members having to do with the program of this convention. In talking with the proponent of this resolution, he agreed that the program we have endeavored to follow was very closely in accordance with the resolutions which he had prepared before he was aware of the way in which we were going to conduct business, and therefore, with his agreement, the Resolutions Committee recommend that no action on that particular subject be taken at this time, having in mind that at the meeting this evening any suggestions as to the improvement of the program at conventions for our future guidance will be very thankfully received and very welcome.

There was one other resolution having to do with the Peace Award, and may I ask all of you who are familiar with the plan of the Peace Award to raise your hands? (A few responded.) I think about seven. The resolution proposed was that this convention endorse the plan of the Peace Award. Some years ago the officers of this Association came to the conclusion that it was desirable that we should put ourselves on record emphatically concerning things which were done within our knowledge, confining ourselves to matters on which we could give an informed and intelligent opinion. There is not a person in the hospital field who does not desire peace. Many of you have seen the frightful results of war. In Washington it was my duty every day to put on a graphic chart the men who were sick, injured and killed from day to day, and anybody who has seen even that record on paper of the disasters of war cannot help but be for all time an advocate of peace whenever peace may be properly pursued; but it seemed to the Resolutions Committee that an endorsement of a special plan with no knowledge of its possibilities, a plan as yet undeveloped, a plan consisting practically entirely of the presentation of papers in the endeavor to find a way to make peace abiding, would not add materially to the proposition, would be an expression of uninformed opinion on the part of this Association, and if we ever want to become an organization of authority in important matters, we have got to establish the reputation of speaking when we know that speaking will be useful, and speaking to effect,

because people then will know that when we speak we know what we are talking about and mean what we say. For that reason, in order that the influence of this American Hospital Association in any public action that it takes in the future shall be powerful, shall have the backing of intelligent thought behind it, and because of the fact that whatever action this Association takes with regard to this present proposition will have practically no effect, your committee recommends no action by this convention.

PRESIDENT BACON: We will now have the report of the Special Committee to Draft Resolutions.

DR. E. T. OLSEN, Superintendent Englewood Hospital, Chicago: This was a special committee appointed for the purpose of preparing resolutions in connection with the deaths of Dr. Ancker and Dr. Howard, who died during the year. These gentlemen were known to all of us, and those of us who knew them intimately respected them for their high ideals, their profound knowledge of hospital work and their value to this Association. A great deal might be said in eulogy of both men, but the committee has prepared two resolutions which it submits to the Association, which are brief and which we think will express the sentiment of every one who knew them. I will read the resolutions:

WHEREAS, the Supreme Ruler of the Universe has seen fit to remove from our midst Dr. Arthur B. Ancker, one of the oldest members and a past president of this Association, and

WHEREAS, Dr. Ancker, by reason of his long association with this organization, his whole hearted devotion to, and his activity and achievements in, the practical field of hospital work, and by virtue of his lovable character, integrity and sterling qualities, had deeply endeared himself to all who were associated with and knew him, therefore

BE IT RESOLVED, That we, the members of the American Hospital Association, in its 25th annual session at Milwaukee, Wisconsin, do hereby express our sincere sorrow in the loss of a valuable and conscientious worker, and that we do hereby extend to his wife, Mrs. Ancker, our heartfelt sympathy in her great bereavement, and

BE IT FURTHER RESOLVED, That this resolution be spread upon the minutes of this meeting, and that a copy of the same be sent to Mrs. Ancker.

WHEREAS, the Almighty Ruler of the universe has called to his final reward Dr. Herbert Burr Howard, one of the earliest members and a past president of this Association, and

WHEREAS, Dr. Howard, by reason of his long association with this organization, his interest and activity in all matters pertaining to the care of the sick in hospitals, and by reason of his high

integrity, sound judgment and simple directness, had become a counselor to his associates and friends, therefore

BE IT RESOLVED, That we, the members of the American Hospital Association in its 25th annual session at Milwaukee, Wisconsin, here record our deep sense of loss and sorrow, and

BE IT FURTHER RESOLVED, That this resolution be spread upon the minutes of this meeting, and that a copy of the same be sent to

E. T. OLSEN, M. D.,
L. B. BALDWIN, M. D.,
J. B. HOWLAND, M. D.

Committee.

These resolutions are submitted by the committee and your committee recommends the adoption of both resolutions.

PRESIDENT BACON: You have heard the resolutions and I will ask the members present to do honor to these two ex-Presidents by rising to your feet as a vote.

The resolutions were adopted by a rising vote.

PRESIDENT BACON: Next is the report of the Committee on Constitution and Rules.

MR. R. P. BORDEN: This is a formal matter necessary under our constitution. An amendment in accordance with our rules has been presented at a previous section and is now ready for action and I therefore move to amend Article 3 of the constitution by adding thereto the following:

Section 4. Any person or organization not residing or having a usual location within the Continent of North America may become and remain a Subscribing Member of the Association upon and during the payment of the minimum annual dues of an institutional member as determined by the by-laws, and during such membership shall be entitled to all publications of the Association. Acceptance of such dues may be refused at any time by vote of the trustees in their discretion.

PRESIDENT BACON: You have heard the report of the committee. What action do you wish to take?

It was moved and seconded that the movement be adopted and the motion was unanimously carried.

PRESIDENT BACON: This completes my part of the program. About all that I can say is that if the members who have attended this twenty-fifth annual conference have received as much benefit and genuine pleasure out of it as I have, you will feel fully repaid for your time and trouble in being here, and as a token, a small token I will say, of appreciation of the honor that you have bestowed upon

me as your President and for your hearty cooperation this past year. I wish to present to the Association through Dr. MacEachern, your new President, this gavel.

PRESIDENT MACEACHERN takes the chair, the members rising and greeting him with applause.

PRESIDENT MACEACHERN: First of all I want to thank President Bacon for this gavel, a very necessary piece of equipment to control the ever enlarging audiences of this Association. I can assure you, Mr. Bacon, it will be of great service for many years to come. The gavel is suitably inscribed "Presented to the American Hospital Association, 1923, by Asa S. Bacon, President." This, ladies and gentlemen, is your gift and I am sure on behalf of the Association you wish me to convey our sincere thanks and appreciation to Mr. Bacon for this. This will also be something more to remember him by. We will, of course, remember him in many other ways and particularly by his presidency at this Silver Jubilee conference.

I must thank you sincerely for the honor you have done me and the confidence placed in me by electing me as your President for 1924. It is a very difficult task to follow such men as Asa Bacon, George O'Hanlon and all of the rest of the great men during the past 25 years. It will be a most difficult task to live up to the standard set this year. This has really worried me a good deal during this most successful and wonderful convention. Now, it is only natural that I should pledge myself to something, and it is simply this—that so far as it is physically possible I want to serve you this year in every way. I am for the betterment of the American Hospital Association, an organization that I have been interested in for many years, an organization in which I see most wonderful opportunity for serving the hospitals of this continent. Today, with its perfection and its splendid development, I am sure that great things can be accomplished.

My presidential address comes next year, so you are not going to have it this afternoon. However, let me again repeat that I highly appreciate the honor and responsibility which I feel that I am shouldering today. The success of the Association depends entirely on the accumulative effort of all of its members. Every one of you has an individual responsibility to perform. We expect you to do more than come to the convention to listen and participate in the proceedings. We expect you to be active during the next 365 days or until we meet. The office at 22 East Ontario street will welcome you either by letter or by telegram, and especially by personal visits. If you have a chance to visit Chicago and go to the office at 22 East Ontario you will be impressed with what a fountain of information

is gathered around that place and what a service the organization can be to you.

During the entire year we will be glad to receive suggestions and constructive criticism. Do not criticize the Association unless you have an alternative suggestion as a remedy. That is what I mean by sound, constructive criticism and that is what we always want. The Association is primarily educational, a final authority indeed in many opinions on certain matters that you may want to know more about. This is accomplished through the working committees as you will realize when you get the reports issued from this convention and after you have visited the various exposition booths.

When you go home and tell about this large exposition that has been shown all week, do not make people think that this is only a commercial feature of our conference. Remember the entire conference is primarily educational, it is a scientific feature of the conference and one that we must develop further. I am sure a number of you have secured valuable information to help you all year.

Come to the banquet tonight and let us have a large attendance. There will be an opportunity for open forum discussion, for suggestions for the good of the Association and a splendid opportunity to get acquainted. I am sure you will be interested to know who your new officers are, therefore, I will call them to the platform and present them to you. I will ask Mr. E. S. Gilmore, President-elect and superintendent of the Wesley Memorial Hospital, Chicago, to come to the platform.

MR. E. S. GILMORE: I, too, feel very grateful for the honor that you have conferred upon me; I think it is an honor that is worthy the ambition of any member of this Association. This is your Jubilee Year. We have had a splendid convention; the papers have been clear and logical, the discussions have been friendly, yet spirited, and the crowning glory of the convention is of course that you elected me President-elect. (Applause and laughter.) I thank you from the bottom of my heart. I thank you all; I love you all—especially the ladies. (Applause and laughter.)

PRESIDENT MACEACHERN: Mr. J. B. Franklin, Baylor Hospital, Dallas, Texas, First Vice-President.

MR. J. B. FRANKLIN: Ladies and gentlemen: ordinarily you expect age to follow youth; this time youth has followed age. (Laughter.) I certainly appreciate the recognition you have given Southern hospitals by electing me first vice-president. This is the first time in a long while that the South has been so recognized. I hope we may justify this honor. When another year shall have passed, we will have a greater representation from our section than ever before. We have some good hospitals in the South, and some people there who know a little about hospital work. We think we can contribute some-

thing to this Association, and that shall be our aim. I thank you.

PRESIDENT MACEachern: Dr. C. W. Munger, Blodgett Memorial Hospital, Grand Rapids, Second Vice-President.

DR. C. W. MUNGER: I have no speech prepared, but I, also, wish to thank the Association for this recognition. I feel that I am one of the infants of this organization; this is my sixth birthday; some of you are having your 25th birthday. I hope that in the ensuing years I may be able to accomplish enough to justify your kindness in giving me this office. Thank you.

PRESIDENT MACEachern: Miss Emily L. Loveridge, Good Samaritan Hospital, Portland, Oregon, Third Vice-President.

MISS EMILY L. LOVERIDGE: Greatly honored, slightly shaky in my knees and elbows—and the West will do its best to serve you.

PRESIDENT MACEachern: Our Treasurer is our good friend Asa Bacon, whom you all know.

MR. ASA BACON: The only thing I can say is that you will have to keep your hands on your pocketbooks for the next year.

PRESIDENT MACEachern: There are two new Trustees this year—Miss Alice Thatcher, Superintendent Christ Hospital, Cincinnati, Ohio, and Dr. A. K. Haywood, Superintendent General Hospital, Montreal. I have much pleasure in introducing Miss Thatcher.

MISS ALICE THATCHER: I assure you I consider it a great honor to have been elected a trustee of this great organization and I hereby pledge myself to give to you the best of my ability throughout the year's service. (Applause.)

DR. A. K. HAYWOOD, Montreal: I will merely second what Miss Thatcher said.

PRESIDENT MACEachern: Dr. Haywood was brief because he saw this gavel. There are certain standing committees which it is necessary to appoint at this time. I beg to submit the following appointments:

STANDING COMMITTEES 1924

CONSTITUTION AND RULES

Richard P. Borden, Chairman—Trustee Union Hospital, Fall River Mass.
 Rev. H. L. Fritschel, President, Milwaukee Hospital, Milwaukee, Wis.
 George D. O'Hanlon, M. D., Medical Superintendent, Bellevue and Allied Hospitals, New York City.

RESOLUTION COMMITTEE.

W. H. Conley, M. D., Chairman—Medical Superintendent, Metropolitan Hospital, Welfare Island, New York City.
 John M. Peters, M. D., Superintendent, Rhode Island Hospital, Providence, R. I.
 H. K. Thurston, Business Manager, Madison General Hospital, Madison, Wis.

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MEMBERSHIP

Lewis A. Sexton, M. D., Chairman—Superintendent, Hartford Hospital, Hartford, Conn.
Elmer E. Matthews, Superintendent, Wilkes-Barre City Hospital, Wilkes-Barre, Pa.
Miss Marietta Barnaby, Superintendent, Henry Heywood Hospital, Gardner Mass.

OUTPATIENT

Alec N. Thomson, M. D., Chairman—Medical Secretary, Committee on Dispensary Development, 15 W. 43rd St., New York City.
A. K. Haywood, M. D., Superintendent, Montreal General Hospital, Montreal, P. Q.
Walter Niles, M. D., Dean, Cornell University Medical College, New York City.

LEGISLATIVE.

E. T. Olson, M. D., Chairman—Superintendent, Englewood Hospital, Chicago, Ill.
Howell Wright, Executive Secretary, Cleveland Hospital Council, 602 Electric Bldg., Cleveland, Ohio.
F. O. Bates, Superintendent, Roper Hospital, Charleston, S. C.

NOMINATION

C. J. Cummings, Chairman—Superintendent, Tacoma General Hospital, Tacoma, Wash.
Walter White, Superintendent, Wesley Memorial Hospital, Emory University, Ga.
Miss E. G. Flaws, Superintendent, Wellesley Hospital, Toronto, Ont.
Miss Geraldine Borland, Superintendent, Wisconsin Deaconess Hospital, Green Bay, Wis.
Geo. B. Landers, M. D., Superintendent, Highland Hospital, Rochester, N. Y.

There are a number of other committees that will be appointed shortly and from time to time throughout the year. The personnel of some of these is not yet complete. Announcement will be made as soon as appointed. There is a large number of committees in this Association and each has an important definite work to do. When you are appointed to a committee, start right in and work hard with your chairman. The reports of all committees must be completed in good time each year so that they may be printed before the meeting. Is there any other business for this afternoon?

MR. ROBERT JOLLY: While we are in business session, so this can be put on the minutes, I want to make a motion that this Association express its appreciation and gratitude to Mr. Fritschel and his committee for the fine way in which they have entertained us while we were here. That is a lot of work—that man has worked his head nearly off, and his committee has done fine work.

The resolution was adopted by a rising vote.

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PRESIDENT MACEachern: Mr. Fritschel, I have great pleasure in presenting to you this vote of thanks from the American Hospital Association. To it let me add my own personal appreciation as chairman of this meeting. The arrangements carried out by your local committee have been just wonderful, and I hope we may be so fortunate each year to have a group that will help as you people did. Is there any further business to come before the convention?

The session then adjourned.

CONSTITUTION AND BY-LAWS

AMERICAN HOSPITAL ASSOCIATION INCORPORATED

(AS AMENDED AT THE ANNUAL CONFERENCE, OCT. 29-NOV. 3, 1923, MILWAUKEE, WIS.)

ARTICLE I

The name of this Association shall be "The American Hospital Association."

ARTICLE II

The object of this Association shall be to promote the welfare of the people so far as it may be done by the institution, care and management of hospitals and dispensaries with efficiency and economy, to aid in procuring the cooperation of all organizations with aims and objects similar to those of this Association; and in general, to do all things which may best promote hospital efficiency.

ARTICLE III

Section 1. The membership of the Association shall be—

A. Institutional.

Any corporation or association organized for the promotion of public health or for the care or treatment of the sick or injured shall be entitled to membership subject to the following:

Active.—Active institutional members shall be institutions having direct responsibility for the care of patients however such institution may be designated.

Applications for active institutional membership shall be addressed to the Executive Secretary in writing, signed by a duly authorized representative of the corporation or association; they shall be referred to the Membership Committee and the applicant shall become a member upon receiving the approval of the majority of the Membership Committee and upon the payment of the initiation fee as follows: Hospitals with a capacity of less than 100 beds shall pay ten dollars; those from 100-250 beds, inclusive, shall pay twenty dollars; all over 250 beds shall pay thirty dollars; all other organizations eligible to active institutional membership shall pay ten dollars.

Constituent active institutional members shall be entitled to appoint as their representatives in the Association any person or persons who are eligible to active or associate membership in the Association, and of the number so appointed no more than three, including the Superintendent, shall have all the privilege and authority of active personal members and shall be so designated, and others so appointed shall have the privileges of associate personal members.

Associate.—Associate institutional members shall be corporations, associations or other organizations existing for the promotion of public health but not having direct responsibility for the care of patients.

Applications for associate institutional membership shall be addressed to the Executive Secretary in writing signed by a duly authorized representative of the corporation or association; they shall be referred to the Membership Committee and the applicant shall

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become a member upon receiving the approval of a majority of the Membership Committee and the payment of the dues for the first year. Constituent associate institutional members shall be entitled to appoint as their representative any person or persons eligible to active or associate personal membership or officers of the corporations or organizations without other hospital connections, who shall have all privileges except vote.

B. Personal

Active.—Active personal members shall be those who at the time of their election are trustees or superintendents, or assistant superintendents of hospitals, or members of the medical staffs of hospitals, however such officials may be designated, or executive officers of any organization having as its primary purpose the development of hospitals for general public service, the scope and nature of whose work is approved by the Trustees. Any person once an active personal member may continue such membership so long as the rules of the Association are conformed with.

Associate.—Associate personal members shall, at the time of their election, be heads of any executive, administrative, or educational department of a hospital, other than as designated in Section 1B Active, or contributors to, or members of, any association or board, the object of which is the foundation, maintenance or improvement of hospitals or the promotion of organized charities for the improvement of health. Associate personal members may hold office, but shall not have the right to vote at meetings of the Association.

Applications for active or associate personal membership shall be in writing, addressed to the Executive Secretary, and shall be endorsed by one or more members of the Association. They shall be referred to the Committee on Membership; and the applicant shall become a member upon receiving the approval of a majority of said Committee, and upon payment of an initiation fee of five dollars for active and three dollars for associate membership, which shall cover the dues payable at the next convention of the Association after election.

Section 2. Upon attaining any of the offices designated in Section 1B Active an associate personal member may become an active personal member by completing the payment of the dues for actual personal members as provided in the By-Laws.

Section 3. Honorary personal membership after approval of the Membership Committee may be suggested at any session of the Association by any member for any person who by reason of public or private service, or for any other reason, should be entitled to such recognition; and such person may be elected an honorary personal member by a majority vote of those present at any subsequent session of the Association.

Honorary personal members shall have all the privileges of active personal members, except voting at meetings of the Association. They shall be exempt from the payment of dues.

Section 4. Established personal memberships shall be continued for life on the payment of fifty dollars by active members and twenty-five dollars by associate members with exemption from the payment of dues.

Section 5. Any person or organization not residing or having a usual location within the Continent of North America may become and remain a Subscribing Member of the Association upon and during the payment of the minimum annual dues of an institutional member as determined by the By-Laws and during such membership shall be entitled to all publications of the Association.

Acceptance of such dues may be refused at any time by vote of the Trustees in their discretion.

ARTICLE IV: OFFICERS

Section 1. The officers of the Association shall be a President, President-elect, three Vice-Presidents, an Executive Secretary, a Treasurer, and a Board of Trustees as herein provided.

The Executive Secretary shall serve as Secretary of the Board of Trustees.

Section 2. The above officers, other than the Board of Trustees and the Executive Secretary, shall be elected at each convention. The Executive Secretary shall be ap-

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pointed by the Board of Trustees. They shall assume their duties at the close of the convention and shall serve until the close of the convention next succeeding, or until their successors are regularly elected and installed. Provided, however, that the President-elect shall assume the office of President at the next convention succeeding the convention of his election and that after the year 1919 no President shall be elected as such.

ARTICLE V: TRUSTEES

There shall be a Board of nine Trustees, which shall have charge of the property and financial affairs of the Association, and shall hold title thereto under the name of "Trustees of the American Hospital Association." The President, President-elect and Treasurer shall constitute three of said Trustees and two Trustees shall be elected annually, at the convention, to serve for three years, excepting that in 1919 one of said Trustees shall be elected for one year, one for two years and two for three years. Trustees shall serve until their successors are elected.

The Board of Trustees shall, always subject to the vote of the Association, have general control and management of the business of the Association, and may appoint and fix the salaries of such officers and agents as it may deem necessary and expedient and establish rules and rates for the use of such facilities as it may in its judgment provide.

ARTICLE VI: SECTIONS

In order to facilitate the work of the Association, sections may be formed and discontinued from time to time, as the Trustees may by vote determine. Such sections may be geographical, in order that recognized meetings of the Association may be held in various parts in places not easily accessible to all members, or may be departmental in their nature and devoted to any recognized branch of hospital work. Proceedings of any authorized section of the Association approved by the Board of Trustees may become a part of the proceedings of the Association, and any resolution adopted by a geographic section shall be recognized as a motion duly made and seconded by any general session of the Association, and vote of the general Association shall be taken thereon.

ARTICLE VII: ANNUAL DUES

In order to provide funds for the maintenance of the Association, both institutional and personal members shall pay annual dues as may be determined by the By-Laws.

ARTICLE VIII: VACANCIES

Any vacancies occurring between the regular annual meetings in the office of the President, President-elect, the various Vice-Presidents, Treasurer, Executive Secretary or Board of Trustees, shall be filled temporarily by vote of the Board of Trustees; any other vacancies shall be filled temporarily by appointment of the President; and the appointees shall hold office until their successors are elected by the Association.

ARTICLE IX: AMENDMENTS

The Constitution and By-Laws may be amended by vote of not less than two-thirds of the members present and voting at a recognized general session of the Association; provided, however, that proposed amendments shall be submitted in writing at a recognized general session, and shall not be acted upon at a session at which they are proposed, but may be at any subsequent session.

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BY-LAWS

ARTICLE I

Section 1. There shall be an annual meeting or convention of the Association held at a time and place fixed by vote of the Association, or, if not so determined, by the Board of Trustees. The President and the Executive Secretary shall arrange programs for the convention.

Section 2. Special meetings may be called by the President, or in his absence, by a Vice-President, upon the written petition of not fewer than ten (10) members. This petition shall recite the object of the meeting. The President, through the Secretary, shall give notice of not less than sixty (60) days before the proposed time of such special meeting to each member of the Association, which notice shall also recite the object of the meeting.

Section 3. A quorum of the Association shall consist of not fewer than thirty (30) voting delegates or active members.

Section 4. Meetings of sections shall be held in accordance with the rules established by the enrolled members of the section hereinafter provided; provided, however, that such meetings shall not interfere with any general session of the Association.

ARTICLE II: ELECTIONS

Section 1. All officers shall be elected by ballot, excepting where it is otherwise ordered.

Section 2. A majority of the votes cast shall constitute an election.

Section 3. Only the delegates of the constituent institutional members so authorized by Article III, Section 1, and active personal members shall be entitled to vote.

ARTICLE III: DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association, and of the Board of Trustees, of which he shall be the Chairman. He shall appoint all committees, unless, by vote of the Association, other provisions shall be made. He shall be, ex officio, a member of all standing and special committees. The President-elect shall keep in close touch with the Association work as a member of the Board of Trustees, and otherwise during the year he holds the position in preparation for his assumption of the office of President.

Section 2. The Vice-Presidents shall, in the order of their rank, in the absence of the President, perform his duties.

Section 3. Subject to instructions from the Association or from the Board of Trustees, the Executive Secretary shall be the general executive officer of the Association with duties, responsibilities, and privileges such as generally accompany such executive positions. He shall keep the minutes of the meetings and the records of the Association in books provided for these purposes. Subject to the order of the Trustees, he may serve as secretary of standing committees, except the Committee on the Nomination of Officers, and perform such other duties as the Association and the Board of Trustees shall direct. Under the direction of the Trustees, the Executive Secretary shall report to the Association the proceedings of the Trustees and also make such report of his own services as may be advisable.

Section 4. The Treasurer shall receive all dues and other moneys of the Association and shall deposit and account for same, under the direction and control of the Board of Trustees. He shall give to said Board such bond as it shall determine for the faithful performance of his trust. Such bond shall be in the custody of the President. All disbursements and expenditures shall be made under the direction of the Board of Trustees and subject to its rules and requirements. The Treasurer shall keep proper books of account, and shall present a report of the finances of the Association at the annual meeting.

AMERICAN HOSPITAL ASSOCIATION

ARTICLE IV

Section 1. The President shall, immediately after his election, appoint the following standing committees: namely, a Committee on Constitution and Rules, a Legislative Committee, a Membership Committee, all of three members each, a Nominating Committee of five members, a Committee on Out-Patient Work of three members, each of which shall hold office for three years from the date of appointment. This Committee shall undertake such study or activity as may advance progress of out-patient service and shall report to the Association.

Section 2. The Committee on Nominations shall nominate to the convention the names of the candidates for President, three Vice-Presidents, Treasurer and two or more Trustees as vacancies exist. The action of this Committee is at all times subject to the approval of the convention. In the year 1919 it shall nominate a President-elect in addition to a President and thereafter shall nominate a President-elect instead of a President.

Section 3. The members of the Membership Committee shall consider all applications for membership, determine the eligibility of the applicant and express their approval or disapproval thereof to the Executive Secretary.

Section 4. The Committee on Constitution and Rules shall consider and report on all proposed amendments in the Constitution and By-Laws and all Rules of Order.

Section 5. The President shall have the power to appoint such special Committees as may be deemed desirable.

Section 6. The Legislative Committee shall, so far as possible, inform itself concerning all legislative procedure affecting the Association or the interests which it represents. Subject to the approval of the Association or Board of Trustees, it shall actively support all desirable legislation and actively oppose all unwise legislation.

ARTICLE V: DUES

Section 1. Constituent institutional members shall pay annual dues as follows: Hospitals of less than 100 beds shall pay annually \$10, hospitals of 100-250 beds shall pay annually \$25, hospitals of more than 250 beds shall pay annually \$50. All other institutional members shall pay annually the sum of \$10. States, counties, and municipalities shall pay in accordance with the above schedule for each institution accepted to membership. The maximum amount in such case shall, however, not exceed \$100.

Section 2. Dues of active personal members shall be \$5 and of associate personal members \$3 for each calendar year. Life personal members are exempt from the payment of annual dues. Dues shall be payable on or before the first day of March of each year at the office of the Executive Secretary, provided, however, that the dues of members acting as the delegates of institutional members shall, upon request of such personal members to the Treasurer, be remitted for the period of delegation.

Section 3. If said dues are not paid on or before the closing of the annual convention for the current year, the Executive Secretary shall notify the members in arrears, enclosing a copy of this section; and if said dues are not paid on or before the succeeding first day of January, the delinquent member shall be suspended and thereafter shall not be entitled to receive notices, or copies of transactions, or to participate in the meetings until all arrears are paid in full.

Section 4. At any time within three years after the date when dues are first required to be paid, a member who has been suspended shall be reinstated upon the payment of the amount of dues at the time of suspension. Otherwise membership in the Association shall be terminated.

ARTICLE VI: PUBLICATION OF PROCEEDINGS

Section 1. The Executive Secretary shall furnish the minutes and proceedings of the regular meetings for publication as soon thereafter as practicable.

Section 2. The Executive Secretary shall furnish to each member, except as provided in Article V, Section 2, a copy of this publication.

AMERICAN HOSPITAL ASSOCIATION

Section 3. The Treasurer shall upon the certification of the Executive Secretary pay all bills for printing and publication of the proceedings of the regular conventions.

Section 4. No paper shall be published in the minutes or in any magazine or paper as a part of the transactions of this Association except with the approval of the Trustees. All papers read at any session of the Association or its sections shall become the property of the Association, and when so requested the Board of Trustees may cause the same to be copyrighted in the name of the Trustees; but unless prohibited by the Trustees, the authors of all papers read at sessions of the Association or its sections may cause the same to be published, and, if approved by the Trustees, they may be published as a part of the transactions of the Association. No paper or magazine shall be entitled to the exclusive publication of any paper read before the Association or its sections except by vote of the Trustees.

ARTICLE VII: SECTIONS

Whenever a section is established by the Association or Trustees as provided in the Constitution, the President shall appoint a chairman and secretary thereof; and thereupon any delegate or member of the Association may become a member of such section by enrollment therein. When ten (10) or more delegates or members have so enrolled, the chairman shall call a meeting of such delegates or members, and they may thereupon make proper rules and by-laws for the guidance of such section, subject to the approval of the Trustees; and such rules may provide for the method of holding meetings, election of officers, and other matters necessary or important for the proper conduct of the section. The chairman and secretary appointed by the President shall act until their successors are chosen by the members of the section in accordance with the by-laws established by such section.

ARTICLE VIII: GUESTS

Delegates and members of the Association may have the privilege of inviting guests to the meetings, under such rules and regulations as the Trustees may from time to time provide. Guests thus introduced shall be permitted to participate in discussion.

ARTICLE IX: DISCIPLINE

Section 1. All charges of violation and infraction of rules or unbecoming conduct shall be referred to a special investigating committee of five appointed by the President.

Section 2. Due notice of the charges shall be given to the alleged offender, in writing, by the Executive Secretary of the Association.

Section 3. The Association shall have the right and authority to reprimand, suspend and expel any delegate or member guilty of violation of any of the provisions of the constitution or by-laws of the Association, after a full and fair investigation shall have been made.

Section 4. A four-fifths vote shall be necessary to sustain the action of such committee.

ARTICLE X: AMENDMENTS

These by-laws may be amended as provided by Article IX of the constitution.

REGISTRATION—GEOGRAPHICAL

TWENTY-FIFTH ANNUAL CONFERENCE—1923

States	Personal Members	Institutional Delegates	Registered Guests
Alabama	2	—	—
Arkansas	1	—	—
California	7	7	1
Colorado	2	2	4
Connecticut	6	2	—
District of Columbia.....	1	—	—
Florida	1	—	1
Georgia	4	4	—
Idaho	1	1	—
Illinois	55	53	147
Indiana	14	13	12
Iowa	11	9	9
Kansas	3	7	1
Kentucky	5	3	3
Louisiana	5	3	1
Maryland	3	2	1
Massachusetts	15	20	3
Michigan	19	35	19
Minnesota	27	15	30
Mississippi	1	—	1
Missouri	16	11	2
Nebraska	3	2	4
New Hampshire	1	—	1
New Jersey	9	4	6
New York	60	44	16
North Carolina	4	2	1
North Dakota	2	2	2
Ohio	45	47	30
Oklahoma	1	2	—
Oregon	1	1	—
Pennsylvania	43	22	11
Philippine Islands	—	—	1
Rhode Island	3	—	1
South Carolina	1	3	—
South Dakota	—	2	1
Tennessee	3	1	1
Texas	8	8	1
Utah	1	—	—
Vermont	1	—	—
Washington	3	2	2
West Virginia	2	2	—
Wisconsin	25	37	134
Canada	17	11	12
Foreign	—	—	1
	432	379	460*
1923 Total Membership Registration...			811
1922 Membership Registration.....	503	289	
1922 Total Membership Registration...			792 ??

*This includes only guests registering with the American Hospital Association. The total attendance would include in addition to this both the members and guests of the American Occupational Therapy Association, of the American Association of Hospital Social Workers and of the Hospital Dietetic Council. The registration of members and guests of the Protestant Hospital Association is probably nearly if not quite all duplicated in the registration of the American Hospital Association.

GROWTH OF MEMBERSHIP IN THE AMERICAN HOSPITAL ASSOCIATION Published Membership Roll

Year	Voting		Institutional Subscrib- ing	Personal Active	Personal Asso.	Honor- ary	Per- sonal Total	Life		Institutional	
	Personal Members	Institutional Dele- gates						Certificates Act.	Total Life	Acct.	Total Inst.
1899	9	—	9	10	—	1	11	—	—	—	—
1900	23	—	23	21	—	1	22	—	—	—	—
1901	44	—	44	58	—	1	59	—	—	—	—
1902	46	—	46	63	—	3	66	—	—	—	—
1903	59	—	59	79	—	5	84	—	—	—	—
1904	61	—	61	137	—	9	146	—	—	—	—
1905	77	—	77	201	—	10	211	—	—	—	—
1906	86	—	86	224	—	10	234	—	—	—	—
1907	132	—	132	273	—	13	286	—	—	—	—
1908	174	—	174	533	—	24	571	—	—	—	—
1909	204	—	204	531	51	14	596	—	—	—	—
1910	126	—	126	645	54	15	714	—	—	—	—
1911	286	—	286	788	40	15	843	—	—	—	—
1912	267	—	267	913	18	15	946	—	—	—	—
1913	376	—	376	996	20	15	1031	—	—	—	—
1914	394	—	394	992	141	15	1148	—	—	—	—
1915	143	—	143	689	214	15	918	—	—	—	—
1916	394	—	394	939	232	14	1185	—	—	—	—
1917	308	—	308	875	264	10	1149	4	4	—	—
1918	473	—	473	951	284	15	1250	5	5	—	—
1919	216	190	406	857	188	15	1060	11	11	98	98
1920	271	155	426	1014	204	10	1228	11	11	285	285
1921	328	156	484	1155	221	10	1386	25	29	330	330
1922	503	289	792	1374	269	10	1653	26	31	409	409
1923	432	379	811	1457	263	10	1732	28	34	481	490
			2					39	46	583	597

INSTITUTIONAL MEMBERSHIP OF THE AMERICAN HOSPITAL ASSOCIATION

*Indicates registration of voting delegates at the 1923 Conference.

ACTIVE

ALABAMA

Moody Hospital, Dothan, Miss Ida S. Inscor, R.N., Superintendent.

ARKANSAS

St. John's Hospital, Fort Smith, Miss Eva Atwood, Superintendent.

CALIFORNIA

*Kaspere Cohn Hospital, Los Angeles, Mrs. Kathryn K. Meitzler, R.N., Superintendent.

French Hospital, San Francisco, George Tessier, Superintendent.

*Golden State Hospital, Los Angeles, Miss Ethel Swope, Superintendent.

Jewish Consumptive Relief Association of California, Duarte K. Fischel, M.D., Medical Director.

Samuel Merritt Hospital, Oakland, H. S. Hudd, Superintendent.

*Methodist Hospital of Southern California, Los Angeles, L. G. Reynolds, Superintendent.

Murphy Memorial Hospital, Whittier, Miss Elsie Peacock, Superintendent.

Orthopaedic Hospital School, Los Angeles, Miss Mary L. Binger, R.N., Superintendent.

Pasadena Hospital, Pasadena, R. R. Hewson, Superintendent.

St. Francis Hospital, San Francisco, J. J. O'Connor, Manager.

St. Joseph's Hospital, San Francisco, Sister M. Sylvia, Superintendent.

St. Luke's Hospital, San Francisco, Howard H. Johnson, M.D., Superintendent.

*Santa Barbara Cottage Hospital, Santa Barbara, G. W. Curtis, Superintendent.

**Scotia Hospital Association, Scotia, E. L. Cottrell, M.D., and C. C. Cottrell, M.D., Physicians in Charge.

South San Francisco Hospital, South San Francisco, Miss M. Belli, Superintendent.

Stanford Hospitals, San Francisco, George B. Somers, M.D., Physician Superintendent.

*University of California Medical School and Hospitals, San Francisco, W. E. Musgrave, M.D., Superintendent.

COLORADO

Community Hospital, Boulder, Miss Ethel Barr, Manager.

*Denver City and County Hospital, Denver, George A. Collins, Manager of Health and Charity.

*Jewish Consumptives' Relief Society Sanatorium, Edgewater, I. D. Bronfin, M.D., Superintendent.

Park Avenue Hospital, Denver, H. Lamborn, Superintendent.

CONNECTICUT

Bristol Hospital, Bristol, Miss Anna M. Goodhall, R.N., Superintendent.

Danbury Hospital, Danbury, Miss Anna M. Griffin, R.N., Superintendent.

Englewood Hospital, Bridgeport, Mrs. K. A. Budds, Superintendent.

**Grace Hospital, New Haven, Miss J. Alison Hunter, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

Greenwich Hospital, Greenwich, Miss Hattie L. Borman, R.N., Superintendent.
Hartford Dispensary, Hartford, James Raglan Miller, M.D., Physician-in-Chief.
Lawrence and Memorial Associated Hospital, New London, Miss K. M. Prindiville, R. N., Superintendent.
Manchester Memorial Hospital, S. Manchester, Miss Hanna Malmgrem, Superintendent.
Meriden Hospital, Meriden, Miss Marion J. Wells, R. N., Superintendent.
Mount Sinai Hospital, Hartford, Samuel G. Ascher, Superintendent.
St. Mary's Hospital, Waterbury, Mother Superior in Charge.
Stamford Hospital, Stamford, Miss Evelyn M. Wilson, Superintendent.
Waterbury Hospital, Waterbury, Charles Lee, Superintendent.

DELAWARE

Homeopathic Hospital, Wilmington, Miss M. Louise Pugh, R.N., Superintendent.

DISTRICT OF COLUMBIA

Children's Hospital of D. C., Miss Mattie M. Gibson, Superintendent.

FLORIDA

Miami City Hospital, Miami, Miss A. Royce, Superintendent.

GEORGIA

Athens General Hospital, Athens, Miss Agnes P. McGinley, R.N., Superintendent.
City Hospital, Columbus, Miss N. W. Tew, Superintendent.
*Grady Hospital, Atlanta, S. R. Johnston, Superintendent.
Macon Hospital, Macon, R. Massenburg, Superintendent.
Thomasville City Hospital, Thomasville, Miss Maude Miller, R.N., Superintendent.
*University Hospital, Augusta, Carlisle S. Lentz, M.D., Superintendent.
*Wesley Memorial Hospital, Emory University, Walker White, Superintendent.

IDAHO

*St. Luke's Hospital and Training School, Ltd., Boise, Miss Emily Pine, Superintendent.

ILLINOIS

***Augustana Hospital, Chicago, E. I. Erickson, Acting Superintendent.
*Aurora Hospital, Aurora, J. W. Meyer, Manager.
*Brokaw Hospital, Normal, Miss L. J. Justis, R.N., Superintendent.
Julia F. Burnham Hospital, Champaign, Miss Maud M. Northwood, Superintendent.
Central Free Dispensary, Chicago, Mrs. Gertrude Howe Britton, Superintendent.
Chicago General Hospital, Chicago, Wm. C. Spengenberg, M.D., Superintendent.
**Chicago Memorial Hospital, Chicago, Mrs. V. A. Horner, Superintendent.
*Decatur and Macon County Hospital, Decatur, P. W. Wipperman, M.D., Superintendent.
*Englewood Hospital, Chicago, E. T. Olsen, M.D., Superintendent.
***Evangelical Deaconess Hospital, Chicago, Rev. H. J. Bauernfeind, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- **Evanston Hospital Association, Evanston, Miss Ada Belle McCleery, Superintendent.
- **Galesburg Cottage Hospital, Galesburg, Miss Helen C. Jacobson, Superintendent.
- ***German Evangelical Deaconess Hospital, Chicago, Rev. F. Weber, Superintendent.
- ***Henrotin Hospital, Chicago, Miss Veronica Miller, Superintendent.
- Highland Park Hospital, Highland Park, Miss Olive A. Williams, R.N., Superintendent.
- Jarman Memorial Hospital, Tuscola, Miss Florence R. Schrader, Superintendent.
- *Kewanee Public Hospital, Kewanee, Miss Adelaide M. Lewis, R.N., Superintendent.
- **Lake View Hospital, Danville, Clarence H. Baum, Superintendent.
- *Michael Reese Dispensary, Chicago, John E. Ransom, Superintendent.
- ***Michael Reese Hospital, Chicago, Herman Smith, M.D., Superintendent.
- Mount Sinai Hospital, Chicago, Miss Anna Koenig, R.N., Superintendent.
- Norbury Sanatorium, Jacksonville, A. H. Dollear, M.D., Superintendent.
- ***Norwegian-American Hospital, Chicago, Miss Alma C. Olsen, Superintendent.
- Olney Sanitarium, Olney, Miss Katharina Weber, Superintendent.
- *Passavant Memorial Hospital, Chicago, Miss Charlotte Christian, Superintendent.
- *Passavant Memorial Hospital, Jacksonville, Miss Ida B. Venner, R.N., Superintendent.
- *Presbyterian Hospital, Chicago, Asa S. Bacon, Superintendent.
- John C. Proctor Hospital, Peoria, Miss Grace I. Perrin, R.N., Superintendent.
- Provident Hospital and Training School, Chicago, Miss Evelyn M. Kimmell, Superintendent.
- *Public Hospital, Sterling, Miss I. M. Tracey, Superintendent.
- *Rockford Hospital, Rockford, Miss Blanche Easton, R.N., Superintendent.
- St. Luke's Hospital, Chicago, Gerard T. Canton, Superintendent.
- **Sherman Hospital, Elgin, Miss C. Irene Oberg, Superintendent.
- **Silver Cross Hospital, Joliet, Miss Marie C. Petersen, Superintendent.
- South Chicago Hospital, Chicago.
- Swedish-American Hospital, Rockford, Miss Elsa Rudolph, Superintendent.
- **Victory Memorial Hospital, Waukegan, Miss Elizabeth Ann Asseltine, R.N., Superintendent.
- Washington Park Hospital, Chicago, C. O. Young, M.D., Superintendent.
- ***Wesley Memorial Hospital, Chicago, E. S. Gilmore, Superintendent.
- **West Suburban Hospital Association, Oak Park, E. J. Hockaday, Superintendent.
- Frances E. Willard National Temperance Hospital, Chicago, Miss E. C. Waddell, Superintendent.
- Winfield Farms Sanitarium, Winfield, Mary G. Schroeder, M.D., Director.
- *Women and Children's Hospital, Chicago, Miss Mary E. Boteler, R.N., Superintendent.

INDIANA

- *Elkhart General Hospital, Elkhart, Miss Mae H. Fye, Superintendent.
- Grant County Hospital Association, Marion, Miss Virginia R. Witmer, R.N., Superintendent.
- Illinois Steel Company Hospital, Gary, H. W. Sutcliffe, M.D., Surgeon.
- **Lafayette Home Hospital, Lafayette, Miss Margaret Rogers, Superintendent.
- *Robert W. Long Hospital, Indianapolis, Robert E. Neff, Administrator.

AMERICAN HOSPITAL ASSOCIATION

- **Muncie Home Hospital, Muncie, Miss Ruth T. Dean, Superintendent.
- **Protestant Deaconess Hospital, Evansville, Sister Carolina Braun, Superintendent.
- **Reid Memorial Hospital, Richmond, Miss Elizabeth Springmyer, Superintendent.
- St. Antonio Hospital, Gary, Miss Sheila Farrell, R.N., Superintendent.
- St. John's Hospital, Anderson, Sister Sabina, Superior.
- **Union Hospital, Terre Haute, Charles N. Combs, M.D., Superintendent.
- *Walker Hospital, Evansville, James Y. Welborn, M.D., Treasurer and Manager.

IOWA

- Des Moines General Hospital, Des Moines, F. J. Trenery, M.D., Superintendent.
- ***Finley Hospital, Dubuque, Miss N. Adele Northrop, R.N., Superintendent.
- W. G. Graham Hospital, Keokuk, Miss Mary C. Jackson, R.N., Superintendent.
- Henry and Catherine L. Hand Hospital, Shenandoah, Miss Margaret S. MacDonald, R.N., Superintendent.
- Iowa Methodist Hospital, Des Moines, C. C. Hurin, M.D., Superintendent.
- *Makaska Hospital, Oskaloosa, Miss N. Blanche Culbertson, R.N., Superintendent.
- St. Joseph's Mercy Hospital, Sioux City, Sister Mary Michael, Superintendent.
- *St. Luke's Hospital, Davenport, Miss I. Craig-Anderson, Superintendent.
- **St. Luke's Methodist Hospital, Cedar Rapids, Miss Svea Landh, Superintendent.
- Washington County Hospital, Washington, Miss Elisabeth Finlay, Superintendent.

KANSAS

- Arkansas City Hospital, Arkansas City, R. C. Young, M.D., Superintendent.
- Brinkley-Jones Hospital, Inc., Milford, J. R. Brinkley, M.D., Physician in Charge.
- Halstead Hospital, Halstead, L. P. Krehbiel, Superintendent.
- ***Hatcher Hospital, Wellington, A. R. Hatcher, M.D., President and Superintendent.
- Hutchinson Methodist Hospital, Hutchinson, Miss Grace E. Lansing, R.N., Superintendent.
- Liberal Hospital, Liberal, John S. Winter, M.D., Business Manager.
- *McPherson County Hospital, McPherson, Miss Dena Gronewold, R.N., Superintendent.
- Mercy Hospital, Fort Scott, Mother Mary Clare, Superintendent.
- Jane C. Stormont Hospital, Topeka, Miss M. Marguerite Neff, R.N., Superintendent.
- **Wesley Hospital and Nurse Training School, Wichita, Rev. L. M. Riley, Superintendent.
- *Wichita Hospital, Wichita, Thomas Dawkins, Superintendent-Manager.

KENTUCKY

- *Children's Free Hospital, Louisville, Miss Annette B. Cowles, Superintendent.
- *Kentucky Baptist Hospital, Louisville, T. J. McGinty, Superintendent.
- Louisville City Hospital, Louisville, Henry E. Tuley, M.D., Superintendent.
- Norton Memorial Infirmary, Louisville, Miss Alice M. Gags, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

LOUISIANA

- *Charity Hospital of Louisiana, New Orleans, W. W. Leake, M.D., Superintendent.
- Flint-Goodrich Hospital, T. Restin Heath, M.D., Superintendent.
- North Louisiana Sanitarium, Shreveport, Louis Abramson, M.D., Superintendent.
- Presbyterian Hospital of New Orleans, New Orleans, Miss Alice Sampley, R.N., Superintendent.
- *Shreveport Charity Hospital, Shreveport, W. P. Morrill, M.D., Superintendent.
- *Touro Infirmary, New Orleans, John D. Spelman, M.D., Superintendent.

MAINE

- Eastern Maine General Hospital, Bangor, George H. Stone, M.D., Superintendent.
- Presque Isle General Hospital, Presque Isle, Miss Margaret B. Cowan, R.N., Superintendent.
- Western Maine Sanatorium, Greenwood Mountain, Lester Adams, M.D., Superintendent.

MARYLAND

- Church Home & Infirmary, Baltimore, Miss Jane E. Nash, Superintendent.
- Franklin Square Hospital, Baltimore, Newton I. Parr, M.D., Superintendent.
- Hebrew Hospital, Baltimore, Miss Ada R. Rosenthal, R.N., Superintendent.
- Hospital for the Women of Maryland, Baltimore, Miss Stella W. Sampson, Superintendent.
- Jewish Home for Consumptives, Reisterstown, Albert F. Shrier, M.D., Superintendent.
- *Johns Hopkins Hospital, Baltimore, Winford H. Smith, M.D., Director.
- Maryland General Hospital, Baltimore, George C. Peck, M.D., General Superintendent.
- *Union Memorial Hospital, Baltimore, Miss Roberta L. Ball, R.N., Superintendent.

MASSACHUSETTS

- *Beth Israel Hospital, Boston, Boris E. Greenberg, M.D., Superintendent.
- Beverly Hospital, Beverly, Miss Frances P. West, R.N., Superintendent.
- *Boston Dispensary, Boston, Frank E. Wing, Director.
- Boston Lying-in Hospital, Boston, Miss Louise S. Zutter, Superintendent.
- Peter Bent Brigham Hospital, Boston, Joseph B. Howland, M.D., Superintendent.
- Robert Breck Brigham Hospital, Boston, Miss Edith I. Cox, R.N., Superintendent.
- Bristol County Tuberculosis Hospital, Attleboro, Adam S. MacKnight, M.D., Superintendent.
- *Brockton Hospital, Brockton, F. M. Hollister, M.D., Superintendent.
- Cambridge Hospital, Cambridge, Miss Josephine E. Thurlow, Superintendent.
- Children's Hospital, Boston, Miss Ida C. Smith, Superintendent.
- *Charles Choate Memorial Hospital, Woburn, Miss Edith F. Bennett, R.N., Superintendent.
- *Faulkner Hospital, Boston, Miss Frances C. Ladd, R.N., Superintendent.
- Franklin County Public Hospital, Greenfield, Miss Annie S. Barclay, R.N., Superintendent.
- **Harley Private Hospital, Dorchester, Boston, Miss Rose A. M. Harley, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Henry Heywood Memorial Hospital, Gardner, Miss Marietta D. Barnaby R.N., Superintendent.
- Holden District Hospital, Holden, Miss Cecelia V. McCarthy, R.N., Superintendent.
- *House of the Good Samaritan, Boston, Miss Louise M. Coleman, Superintendent.
- Collis P. Huntington Memorial Hospital, Boston, Miss Anna L. Gibson, R.N., Superintendent.
- Anna Jacques Hospital, Newburyport, Miss Violet L. Kirk, Superintendent.
- Leominster Hospital, Leominster, Miss Shannah N. Macfadden, R.N., Superintendent.
- *Lynn Hospital, Lynn, Miss Vera A. Allan, R.N., Superintendent.
- Malden Hospital, Malden, Miss Rachel McEwen, Superintendent.
- *Massachusetts Charitable Eye & Ear Infirmary, Boston, F. A. Washburn, M.D., Superintendent.
- *Massachusetts General Hospital, Boston, Frederick A. Washburn, M.D., Director.
- Melrose Hospital, Melrose, Miss Melissa J. Cook, Superintendent.
- Memorial Hospital, Worcester, Miss Lucia L. Jaquith, R.N., Superintendent.
- Morton Hospital, Taunton, Miss Ursula C. Noyes, Superintendent.
- New England Baptist Hospital, Boston, Miss Emma A. Anderson, R.N., Superintendent.
- **New England Deaconess Hospital, Boston, Miss Caroline A. Jackson, Superintendent.
- *Newton Hospital, Newton Lower Falls, Miss Bertha W. Allen, R.N., Superintendent.
- North Adams Hospital, North Adams, Miss Mary Larter, R.N., Superintendent.
- Palmer Memorial Hospital, Boston, Miss Sadie A. Hagen, Superintendent.
- *Quincy City Hospital, Quincy, Miss Etta May Bagley, Superintendent.
- St. Luke's Hospital, New Bedford, Miss Georgia M. Nevins, Superintendent.
- Springfield Hospital, Springfield, John C. Gardiner, Superintendent.
- Symmes Arlington Hospital, Arlington, Miss Nora A. Brown, Superintendent.
- Union Avenue Hospital, Framingham, Miss Florence A. Eaton, R.N., Superintendent.
- *Union Hospital, Fall River, M. R. Pratt, M.D., Superintendent.
- Vincent Memorial Hospital, Boston, Miss Jean C. Fraser, Superintendent.
- Ware Hospital, Ware, Miss Mary L. Whitney, R.N., Superintendent.
- Wesson Maternity Hospital, Springfield, Miss Winifred H. Brooks, R.N., Superintendent.
- *Winchester Hospital, Winchester, Miss Bessie L. Norton, Superintendent.
- Winthrop Community Hospital, Winthrop, Miss Mary Jane Jahnle, R.N., Superintendent.
- *Worcester Hahnemann Hospital, Worcester, Miss Suzanne M. Freeman, R.N., Superintendent.

MICHIGAN

- ***Battle Creek Sanitarium, Battle Creek, J. H. Kellogg, M.D., Superintendent.
- Beyer Memorial Hospital, Ypsilanti.
- ***Blodgett Memorial Hospital, Grand Rapids, C. W. Munger, M.D., Superintendent.
- Bronson Methodist Hospital, Kalamazoo, W. M. Puffer, Superintendent.
- *Butterworth Hospital, Grand Rapids, Sidney G. Davidson, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Children's Hospital of Michigan, Detroit, Miss Margaret A. Rogers, Superintendent.
- Detroit Eye, Ear, Nose and Throat Hospital, Detroit, B. R. Shurly, M.D., Chief of Staff.
- *Evangelical Deaconess Hospital, Detroit, Rev. C. C. Haag, Superintendent.
- W. A. Foote Memorial Hospital, Jackson, Miss L. Winifred Seckinger, Superintendent.
- *Henry Ford Hospital, Detroit, W. L. Graham, Superintendent.
- *Grace Hospital, Detroit, W. L. Babcock, M.D., Superintendent.
- ***Hackley Hospital, Muskegon, Miss Grace D. McElderry, R.N., Superintendent.
- Harbor Beach Hospital, Harbor Beach, F. B. Van Nuys, M.D., Superintendent.
- Harper Hospital, Detroit, Stewart Hamilton, M.D., Superintendent.
- **Highland Park General Hospital, Highland Park, Willard L. Quennell, M.D., Superintendent.
- *Hurley Hospital, Flint, Miss Anna M. Schill, R.N., Superintendent.
- *Memorial Hospital, Owosso, Mrs. Charlena D. Letts, Superintendent.
- Mercy Hospital, Bay City, Sister M. Hilda, Superintendent.
- Mercy Hospital, Grayling, Mother Superior in Charge.
- Mercy Hospital, Manistee, Sister M. Baptist, R.N., Superintendent.
- *Nichols Memorial Hospital, Battle Creek, Miss Elizabeth Nichols, R.N., General Superintendent.
- *North End Community Clinic, Detroit, Harry C. Saltzstein, M.D., Chief of Staff.
- *Pontiac City Hospital, Pontiac, Miss Edna Josephine Nott, R.N., Superintendent.
- **Receiving Hospital, Detroit, T. K. Gruber, M.D., Superintendent.
- Saginaw General Hospital, Mrs. Kate Jackson Hard, Acting Superintendent.
- Saginaw Woman's Hospital, Saginaw, Miss Lydia Thompson, R.N., Superintendent.
- *St. Mary's Hospital, Grand Rapids, Sister Mary Bernard, Superintendent.
- *University Hospital, Ann Arbor, C. G. Parnall, M.D., Superintendent.
- Westerlin Hospital, Iron Mountain, William J. Anderson, M.D., Superintendent.
- Woman's Hospital, Detroit, Miss Carrie L. Eggert, Superintendent.

MINNESOTA

- ***Ancker Hospital, St. Paul, J. L. McElroy, M.D., Superintendent.
- *Bethesda Hospital, St. Paul, Rev. J. A. Krentz, Superintendent.
- *Deaconess Hospital, Minneapolis, Sister Marie Folkvard, Superintendent.
- Fair Oaks Lodge Sanatorium, Wadena, George McL. Waldie, M.D., Superintendent.
- Fairview Hospital, Minneapolis, Joseph G. Norby, Superintendent.
- Lake Julia Sanatorium, Puposky, R. L. Laney, M.D., Superintendent.
- *Mayo Clinic, Rochester, H. J. Harwick, Business Manager.
- Mineral Springs Sanatorium, Cannon Falls, Ernest Strader, M.D., Superintendent.
- *Minneapolis General Hospital, Minneapolis, Walter E. List, M.D., Superintendent.
- *Minnesota State Hospital for Indigent Crippled and Deformed Children, St. Paul, Miss Elizabeth McGregor, Superintendent.
- *Rood Hospital, Hibbing, S. S. Blacklock, M.D., Superintendent.
- *St. John's Hospital, St. Paul, Miss Magdalena Rau, Superintendent.
- *St. Luke's Hospital Association, Duluth, A. J. McRae, M.D., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

St. Mary's Hospital, Rochester, Sister Mary Joseph, Superintendent.

St. Paul Hospital, St. Paul, J. E. Haugen, Manager.

*Swedish Hospital, Minneapolis, Mr. Wm. Mills, Superintendent.

Western Minnesota Hospital, Graceville, Miss Anna M. Emge, R.N., Superintendent.

*Winona General Hospital, Winona, Miss Catherine H. Allison, R.N., Superintendent.

MISSISSIPPI

South Mississippi Charity Hospital, Laurel, R. H. Cranford, M.D., Chief Surgeon and Superintendent.

MISSOURI

*Barnes Hospital, St. Louis, L. H. Burlingham, M.D., Superintendent.

*Callaway County Public Hospital, Fulton, Miss Cleo Patton, R.N., Superintendent.

*Christian Church Hospital, Kansas City, Rush E. Castelaw, M.D., Superintendent.

Christian Hospital, St. Louis, Miss Elizabeth M. Gill, R.N., Superintendent.

Frisco Employes' Hospital Association, St. Louis, Mo., R. A. Woolsey, M.D., Chief Surgeon.

*Jewish Hospital of St. Louis, St. Louis, Miss Emma E. Wilson, Superintendent.

Levering Hospital, Hannibal, Miss Julia Cherny, R.N., Superintendent.

**Missouri Baptist Sanitarium, St. Louis, B. A. Wilkes, M.D., Superintendent.

**Missouri Methodist Hospital, St. Joseph, William F. Burris, Superintendent.

Missouri Pacific Hospital Association, St. Louis, Walter J. Grolton, Superintendent.

Research Hospital, Kansas City, Fred L. Wooddell, Superintendent.

St. Louis Baptist Hospital, St. Louis, C. C. Morris, M.D., Superintendent.

*St. Louis Maternity Hospital, St. Louis, Miss Isabelle M. Baumhoff, Superintendent.

*St. Luke's Hospital, St. Louis, Rev. R. D. S. Putney, Superintendent.

Springfield Hospital, Springfield, Miss Signe A. Fredrickson, R. N., Superintendent.

*State Hospital No. 1, Fulton, M. O. Biggs, M.D., Superintendent.

Wheatley-Provident Hospital, Kansas City, J. Edward Perry, M.D., Superintendent.

MONTANA

Murray Hospital, Butte, T. J. Murray, M.D., Physician in Charge.

St. Ann's Hospital, Anaconda, Mother Superior in Charge.

NEBRASKA

Fremont Hospital, Fremont, Mrs. Marie L. White, Superintendent.

Lincoln General Hospital, Lincoln, J. L. Teeters, President.

*Nebraska Methodist Episcopal Hospital, Omaha, Miss Blanche M. Fuller, Superintendent.

NEW HAMPSHIRE

Elliot Hospital, Manchester.

Mary Hitchcock Memorial Hospital, Hanover, Miss Anna C. Lockerby, Superintendent.

Memorial Hospital, North Conway, Miss Helen M. Caverly, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

Nashua Memorial Hospital, Nashua, Miss Martha A. Wallace, Superintendent.
New Hampshire Memorial Hospital, Concord, Miss May E. Barratt, Superintendent.
Margaret Pillsbury General Hospital, Concord, Miss Mary L. Whittaker, R.N., Superintendent.

NEW JERSEY

Nathan & Miriam Barnert Memorial Hospital, Paterson, Mr. David Schwab, Superintendent.
*Burlington County Hospital, Mount Holly, Miss Elizabeth W. Ancker, Superintendent.
Dover General Hospital, Dover, Miss Elizabeth Miller, Superintendent.
Hackensack Hospital, Hackensack, Mrs. Mary Stone Conklin, Superintendent.
Middlesex General Hospital, New Brunswick, Miss R. N. Clement, R.N., Superintendent.
**Monmouth Memorial Hospital, Long Branch, Mrs. Martha M. Scott, R.N., Superintendent.
Muhlenberg Hospital, Plainfield, Miss Marie Louis, R. N., Superintendent.
Newark Beth Israel Hospital, Newark, Paul Keller, M.D., Superintendent.
North Hudson Hospital Association, Weehawken, Miss Mathilda Gumpfer, R.N., Superintendent.
Passaic General Hospital, Passaic, Miss Margaret A. Wallace, Superintendent.
Paterson General Hospital Association, Paterson, Thomas R. Zulich, Superintendent.
Presbyterian Hospital, Newark, Miss Almey C. Murray, R.N., Superintendent.
Society of the Babies Hospital, Newark, Miss Florence P. Burns, R. N., Superintendent.
Somerset Hospital, Somerville, Miss J. B. Hamilton, R.N., Superintendent.
*West Hudson Hospital Association, Kearny, Miss Ann M. Radle, R. N., Superintendent.

NEW YORK

Arnot Ogden Memorial Hospital, Elmira, Miss M. Emily McCreight, R.N., Superintendent.
Auburn City Hospital, Auburn, James B. Macbeth, Manager and Superintendent.
Mary Imogene Bassett Hospital, Cooperstown, Wm. G. Soekland, Superintendent.
Beekman Street Hospital, New York City, Miss Marion Whidden, Superintendent.
*Bellevue Hospital, New York City, Geo. D. O'Hanlon, M.D., Physician in Charge.
Beth David Hospital, New York City, Albert S. Hyman, M.D., Superintendent.
*Beth Israel Hospital, New York City, Louis J. Frank, Superintendent.
*Binghamton City Hospital, Binghamton, Jerome F. Peck, Superintendent.
Bradford Street Hospital, Brooklyn, M. D. Jones, M.D., Superintendent.
Broad Street Hospital, New York City, A. J. Barker Savage, M.D., Superintendent.
Broad Street Hospital, Oneida, Miss Bessie A. M. Ford, Superintendent.
*Bronx Hospital, New York City, Maurice Dubin, Superintendent.
*Brooklyn Hospital, Brooklyn, Willis G. Nealley, M.D., Superintendent.
Buffalo Columbus Hospital, Buffalo, George C. Barone, M.D., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Bushwick Hospital, Brooklyn, Mrs. Charles D. Hommel, Superintendent.
- *Central Neurological Hospital, Welfare Island, C. B. Cosgrove, Superintendent.
- City Hospital, Welfare Island, Charles B. Bacon, M.D., Physician in Charge.
- City of Kingston Hospital, Kingston, Miss Ednah C. Smith, R.N., Superintendent.
- Coney Island Hospital, Brooklyn.
- *Corning Hospital, Corning, Miss Joanna L. James, R.N., Superintendent.
- Cumberland Hospital, Brooklyn, William F. Jacobs, M.D., Superintendent.
- *Deaconess Hospital, Buffalo, Miss Elizabeth I. Hansen, Superintendent.
- Fifth Avenue Hospital, New York City, Wiley E. Woodbury, M.D., Director.
- Millard Fillmore Hospital, Buffalo, C. A. Lindblad, Superintendent.
- Flower Hospital, New York City, Fred J. Loase, Superintendent.
- Fordham Hospital, New York City, Miss Olive B. Leussler, Superintendent.
- **General Hospital of Saranac Lake, Saranac Lake, Miss Emily Denton, Superintendent.
- *Glens Falls Hospital, Glens Falls, N. Y., Mrs. Maude D. Burke, R. N., Superintendent.
- Gouverneur Hospital, New York City, Miss Jessie A. Stowers in Charge.
- **Greenpoint Hospital, Brooklyn, N. Y., Raymond G. Laub, M.D., Medical Superintendent.
- Harlem Hospital, New York City, Miss Jessica V. Vient, Superintendent.
- *Highland Hospital of Rochester, Rochester, George B. Landers, M.D., Superintendent.
- *Hospital for Joint Diseases, New York City, O. H. Bartine, Superintendent.
- House of the Good Samaritan, Watertown, Miss Mabel Hibbard, Superintendent.
- Huntington Hospital, Huntington, Miss Bessie M. Upham, R.N., Superintendent.
- Ithaca City Hospital, Ithaca, Mrs. Genevieve M. Clifford, Superintendent.
- *Jamestown General Hospital, Jamestown, Miss Marie Robertson, R.N., Superintendent.
- *Jewish Hospital of Brooklyn, Brooklyn, John E. Daugherty, M.D., Executive Director.
- Kings County Hospital, Brooklyn, Mortimer D. Jones, M.D., Medical Superintendent.
- Kingston Avenue Hospital, Brooklyn, W. T. Cannon, M.D., Physician in Charge.
- Knickerbocker Hospital, New York City, Miss Lucy M. Moore, R.N., Superintendent.
- Lincoln Hospital and Home, New York City, Frederick W. Gwyer, M.D., Superintendent.
- Nathan Littauer Hospital, Gloversville, Miss Emily F. Merwin, R.N., Superintendent.
- *Lutheran Hospital, Brooklyn, Miss Augusta E. Abel, R.N., Superintendent.
- Manhattan Maternity & Dispensary, New York City, Miss Emily E. Porter, Superintendent.
- **Mary McClellan Hospital, Cambridge, Miss M. M. Sutherland, Superintendent.
- *Memorial Hospital for Treatment of Cancer & Allied Diseases, New York City, George F. Holmes, Superintendent.
- *Metropolitan Hospital, Welfare Island, Walter H. Conley, M.D., Medical Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Metropolitan Life Insurance Co. Sanatorium, Mt. McGregor, Horace J. Howk, M.D., Physician in Charge.
- *Montefiore Hospital for Chronic Diseases, New York City, Ernst P. Boas, M.D., Medical Director.
- Mt. Sinai Hospital, New York City, S. S. Goldwater, M.D., Director.
- Municipal Sanatorium for Tuberculosis, Otisville, Orange County, Thomas F. Joyce, M.D., Superintendent.
- Nassau Hospital, Mineola, Miss Katherine E. Hurley, Superintendent.
- Neponsit Hospital, Neponsit, Miss Josephine T. Brass in Charge.
- *New Rochelle Hospital, New Rochelle, Charles Crane, Superintendent.
- New York City Children's Hospital, Randall's Island, James F. Vavasour, M.D. in Charge.
- New York Nursery and Child's Hospital, New York City, John R. Howard, Jr., Superintendent.
- *New York Post-Graduate Medical School and Hospital, New York City, Louis C. Trimble, Superintendent.
- New York Skin and Cancer Hospital, New York City, Miss Sara Burns, R.N., Superintendent.
- New York Society for Relief of Ruptured and Crippled, New York City, Joseph D. Flick, Superintendent.
- Niagara Falls Memorial Hospital, Niagara Falls, P. Godfrey Savage, Superintendent.
- **Norwegian Lutheran Deaconess Home and Hospital, Brooklyn, Rev. C. O. Pedersen, Superintendent.
- *Olean General Hospital, Olean, Mrs. Ethel Henders Bates, Superintendent.
- Park Avenue Hospital, Rochester, Miss Mary Elizabeth Morris, Superintendent.
- Willard Parker Hospital, New York City, E. Giddings, M.D., Physician in Charge.
- *Physicians' Hospital, Plattsburgh, Mrs. C. S. Bentley, Superintendent.
- Queensboro Hospital, Jamaica, L. I., James D. Smith, M.D., Superintendent.
- Reconstruction Hospital, New York City, Robert Stuart, Superintendent.
- Riverside Hospital, New York City, T. F. Joyce, M.D., Physician in Charge.
- *Rochester General Hospital, Rochester, Miss Mary L. Keith, Superintendent.
- Rochester Homeopathic Hospital, Rochester, Maude L. Johnston, Superintendent.
- Rome Hospital, Rome, Miss E. L. Burn, R.N., Superintendent.
- *St. Luke's Home and Hospital, Utica, I. W. J. McClain, Superintendent.
- St. Mary's Hospital at Amsterdam, Sister Mary Thomas, Superintendent.
- Sea View Hospital, Staten Island, Geza Kremer, M.D., Physician in Charge.
- Sloane Hospital for Women, New York City, Miss A. Isabelle Byrne, Superintendent.
- *Society of the New York Hospital, New York City, Thomas Howell, M.D., Superintendent.
- *Staten Island Hospital, Tompkinsville, N. Y., M. Z. Westervelt, M.D., Superintendent.
- *Strong Memorial Hospital, University of Rochester, Rochester, Nathaniel W. Faxon, M.D., Director.
- Summit Park Sanatorium, Pomona, W. J. Ryan, M.D., Superintendent.
- Frederick Ferris Thompson Hospital, Canandaigua, Miss Clara E. Fellows, Superintendent.
- **Woman's Hospital in the State of New York, New York City, James U. Norris, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

NORTH CAROLINA

- Biltmore Hospital, Biltmore, Miss Mary P. Laxton, R.N., Superintendent.
 *City Memorial Hospital, Winston-Salem, T. C. Redfern, M.D., Superintendent.
 Edgecombe General Hospital, Tarboro, Miss Mary P. Mitchell, Superintendent.
 Rutherford Hospital, Rutherfordton, Miss Emily A. Holmes, R.N., Superintendent.
 St. Agnes Hospital, Raleigh, Jessie A. Duncan, M.D., Superintendent.
 James Walker Memorial Hospital, Wilmington, Miss Florence M. Waters, R.N., Superintendent.
 *Watts Hospital, West Durham, Miss Nina P. Davison, Superintendent.

NORTH DAKOTA

- *Mandan Deaconess Hospital, Mandan, Miss Clara Mueller, R.N., Superintendent.
 St. Luke's Hospital, Fargo, Mrs. Gertrude W. Fuller, R.N., Superintendent.
 Alliance City Hospital, Alliance, Fred M. Walker, Superintendent.
 Ashtabula General Hospital, Ashtabula, Miss, B. P. Creelman, Superintendent.
 Bethesda Hospital, Zanesville, Miss Grace D. Lowry, Superintendent.
 Brown Memorial Hospital, Conneaut, Miss Jessie J. Hubbard, Superintendent.
 Jane M. Case Hospital, Delaware, Viola V. Woodward, Superintendent.
 Cherrington Hospital, Logan, Miss Eva Crutcher, Superintendent.
 Children's Hospital, Mt. Auburn, Cincinnati, Miss Elizabeth Pierce, Superintendent.
 **Children's Hospital, Columbus, Marion S. Reynolds, M.D., Superintendent.
 **Christ Hospital, Cincinnati, Miss Alice P. Thatcher, Superintendent.
 **Cincinnati Sanitarium, Cincinnati, F. W. Langdon, M.D., Medical Director.
 City Hospital, Bellaire, Miss Jessie A. Horn, Superintendent.
 **City Hospital of Akron, Akron, Arden E. Hardgrove, General Superintendent.
 *Cleveland Homeopathic Hospital, Cleveland, J. Z. Kerr, Superintendent.
 **Cleveland Hospital Council, Cleveland, Howell Wright, Executive Secretary.
 *Deaconess Hospital, Cincinnati, Rev. A. G. Lohman, Superintendent.
 Fair Oaks Villa Sanitarium, Cuyahoga Falls, H. Irving Cozad, M.D., Superintendent.
 Fairview Park Hospital, Cleveland, Philip Vollmer, Jr., Superintendent.
 Findlay Home & Hospital, Findlay, Miss Mary L. Margerum, Superintendent.
 ***Flower Deaconess Home & Hospital, Toledo, Miss Anna K. Volger, Superintendent.
 *Glenville Hospital, Cleveland, Mrs. Julia M. White, Superintendent.
 *Good Samaritan Hospital, Cincinnati, Sister Rose Alexius, Superintendent.
 Good Samaritan Hospital, Sandusky, Miss Cora A. Kromer, R.N., Superintendent.
 Good Samaritan Hospital, Zanesville, Mother M. Alexia, Superintendent.
 Grace Hospital, Cleveland, Miss Alice C. Graham, R.N., Superintendent.
 *Holzer Hospital, Gallipolis, Chas. E. Holzer, M.D., Owner.
 Jewish Hospital, Cincinnati, Louis C. Levy, Superintendent.
 Lake County Hospital Association, Painesville, Mrs. Grace Bond, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- *Lakeside Hospital, Cleveland, A. B. Denison, M.D., Director.
- Lima Hospital Society, Lima, Miss Ellen E. Patterson, R.N., Superintendent.
- *Lucas County Hospital, Toledo, George Demuth, General Superintendent.
- Mansfield General Hospital, Mansfield, H. R. Taubken, Superintendent.
- Martins Ferry Hospital, Martins Ferry, Miss Mary C. Stuart, R.N., Superintendent.
- Mary Day Nursery & Children's Hospital, Akron, Arthur O. Bauss, Superintendent.
- *Massillon City Hospital, Massillon, Miss Nell F. Parrish, Superintendent.
- *Maternity Hospital, Cleveland, Miss Calvina MacDonald, Superintendent.
- **Maternity and Children's Hospital, Toledo, Miss Mary E. Yager, R.N., Superintendent.
- Memorial Hospital, Fremont, Miss Melissa M. Dailey, Superintendent.
- Memorial Hospital, Piqua, Miss Dessa H. Shaw, R.N., Superintendent.
- Mercy Hospital, Canton, Sister Mary Charles, Superior.
- **Mercy Hospital, Hamilton, Sister M. Gonzaga, Superintendent.
- Mercy Hospital, Toledo, Sister M. Rose, Superintendent.
- Middletown Hospital, Middletown, Miss K. M. Danner, R.N., Superintendent.
- **Mount Sinai Hospital of Cleveland, Cleveland, F. E. Chapman, Director.
- Rainbow Hospital for Crippled and Convalescent Children, South Euclid, Miss Mary B. Wilson, Superintendent.
- *Robinwood Hospital, Toledo, Miss Hulda M. Wyland, Superintendent.
- St. Ann's Maternity Hospital, Cleveland, Sister M. Geraldine, Superintendent.
- ***St. Elizabeth's Hospital, Youngstown, Sister Marie Hortense, Superintendent.
- *St. John's Hospital, Cleveland, Sister M. Amadeus, Superintendent.
- ***St. Luke's Hospital, Cleveland, C. S. Woods, M.D., Superintendent.
- *St. Vincent Charity Hospital, Cleveland, Sister M. Irene, Superior.
- *Salem City Hospital, Salem, Miss Flora E. Wolbach, Superintendent.
- *Seton Hospital, Cincinnati, Sister Alexandrine, Superintendent.
- Toledo Hospital, Toledo, P. W. Behrens, Superintendent.
- University Hospital, Ohio State University, Columbus, S. A. Hatfield, M.D., Superintendent.
- Derrick T. Vail's Private Hospital, Cincinnati, D. T. Vail, M.D., Owner.
- Warren City Hospital, Warren, Miss Elizabeth Williams, R.N., Superintendent.
- White Cross Hospital, Columbus, Miss Daisy C. Kingston, Superintendent.
- *Woman's Hospital, Cleveland, Miss Wilda Homberger, Superintendent.
- *Youngstown Hospital Association, Youngstown, B. W. Stewart, Superintendent.

OKLAHOMA

- El Reno Sanitarium, El Reno, Miss Lena A. Griep, R.N., Superintendent.
- Morningside Hospital, Tulsa, Mrs. D. I. Browne, Superintendent.
- *State University Hospital, Oklahoma City, Paul H. Fesler, Superintendent.
- Wesley Hospital, Oklahoma City, George D. Hansen, Superintendent.

OREGON

- *Good Samaritan Hospital, Portland, Miss Emily L. Loveridge, Superintendent.
- Portland Eye, Ear, Nose and Throat Hospital, Portland, Miss Grace Phelps, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

PENNSYLVANIA

- Abington Hospital, Abington, John L. Burgan, Superintendent.
- Allegheny General Hospital, Pittsburgh, G. Walter Zulauf, M.D., Superintendent.
- *Allegheny Valley Hospital, Tarentum, Miss Cora B. Lash, R.N., Superintendent.
- *Altoona Hospital, Altoona, Anthony Tall, Superintendent.
- Beaver Valley General Hospital, New Brighton, Miss Clara B. Groscost, Superintendent.
- J. C. Blair Memorial Hospital, Huntingdon, Miss P. Schneider, R.N., Superintendent.
- Bon Air Sanatorium, Bells Camp, H. R. Edwards, M.D., Superintendent.
- Braddock General Hospital, Braddock, Miss Sophie E. Ripper, Superintendent.
- *Christian H. Buhl Hospital, Sharon, La Rue Bird, Superintendent.
- *Chester County Hospital, West Chester, James N. House, Director.
- *Chester Hospital, Chester, John A. Drew, M.D., Superintendent.
- Children's Homeopathic Hospital of Philadelphia, Philadelphia, Francis C. Leupold, Superintendent.
- *The Children's Hospital of Philadelphia, Miss Susan C. Francis, Superintendent.
- Clearfield Hospital, Clearfield, Miss Mary A. Rothrock, R.N., Superintendent.
- *Coatesville Hospital, Coatesville, Miss M. Ellen Donovan, Superintendent.
- Conemaugh Valley Memorial Hospital, Johnstown, William J. Finn, Superintendent.
- Corry Hospital, Corry, Miss Sarah E. Purdum, R.N., Superintendent.
- Easton Hospital, Easton, Edwin R. Lewis, M.D., Superintendent.
- Eye and Ear Hospital of Pittsburgh, Miss Helen Crawford, Superintendent.
- Garretson Hospital of Temple University, Philadelphia, I. W. Cooley, Superintendent.
- Good Samaritan Hospital, Lebanon, Miss Ida Nudell, R.N., Superintendent.
- *Hahnemann Hospital, Philadelphia, John M. Smith, Superintendent.
- Hahnemann Hospital, Scranton, F. C. Hilker, Superintendent.
- *Hamot Hospital, Erie, George W. Wilson, Superintendent.
- Homeopathic Medical & Surgical Hospital, Reading.
- Hospital of the Protestant Episcopal Church in Philadelphia, Philadelphia, E. F. Leiper, Superintendent.
- Hospital of the University of Pennsylvania, Philadelphia, Miss Mary V. Stephenson, Superintendent.
- *Hospital of the Woman's Medical College, Philadelphia, Ellen C. Potter, M.D., Superintendent.
- Jefferson Hospital, Philadelphia, Henry K. Mohler, M.D., Medical Director.
- Jewish Hospital Association of Philadelphia, Philadelphia, Alfred Mayer, Administrator.
- Kensington Hospital for Women, Philadelphia, Miss Florence C. Beck, R.N., Superintendent.
- Lancaster General Hospital, Lancaster, Tunis Kivett, Superintendent.
- Lankenau Hospital, Philadelphia, Henry F. Page, M.D., Superintendent.
- Dr. McGinty's Hospital, Mt. Pocono, E. F. McGinty, M.D., Owner.
- Memorial Hospital, Monongahela, Miss Olive McWilliams, R.N., Superintendent.
- Mercy Hospital, Altoona, Miss Emily C. Allison, Superintendent.
- Mercy Hospital, Pittsburgh, Sister M. Rose, Superintendent.
- Mercy Hospital, Wilkes-Barre, Sister Mary Bernard, Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- Misericordia Hospital, Philadelphia, Mother M. Edmonda, Superintendent.
 Montgomery Hospital, Norristown, Miss Alice C. Shore, R.N., Superintendent.
 Mount Sinai Hospital, Philadelphia, Abraham Ginsburg, M.D., Superintendent.
 National Stomach Hospital, Philadelphia, Miss Helen B. Kenney, R.N., Superintendent.
 *New Castle Hospital, New Castle, Sister M. Catharine, Superintendent.
 Oil City Hospital, Oil City, W. H. Sweitzer, Superintendent.
 *Robert Packer Hospital, Sayre, Howard E. Bishop, Superintendent.
 Pennsylvania Hospital, Philadelphia, Daniel D. Test, Superintendent.
 Philipsburg State Hospital, Philipsburg, Miss Fannie A. Daugherty, Superintendent.
 Pittsburgh Hospital, Pittsburgh, Sister Mary Francis, Superintendent.
 *Pittston Hospital Association, Pittston, Miss Esther J. Tinsley, Superintendent.
 Rush Hospital for Consumption and Allied Diseases, Philadelphia, T. Mellor Tyson, M.D., Medical Director and Superintendent.
 *St. Francis Hospital, Pittsburgh, Sister M. Thomasina, Superintendent.
 St. Joseph's Hospital and Dispensary, Pittsburgh, Sister M. Christina, Superintendent.
 St. Joseph's Hospital, Reading, Sister M. Xavier, Superintendent.
 St. Luke's Homeopathic Hospital, Philadelphia, G. W. Meister, Superintendent.
 St. Luke's Hospital, Bethlehem, Pa., Col. F. A. Winter, Superintendent.
 *St. Margaret Memorial Hospital, Pittsburgh, Miss Elizabeth H. Shaw, R.N., Superintendent.
 *South Side Hospital of Pittsburgh, Pittsburgh, Miss Jeannette L. Jones, Superintendent.
 Stetson Hospital, Philadelphia, Miss Katharine T. Roelop, Superintendent.
 Suburban General Hospital, Bellevue, Miss Eva M. Braun, R.N., Superintendent.
 *Uniontown Hospital Association, Uniontown, David F. Owen, Superintendent.
 Warren General Hospital, Warren, Mrs. A. F. MacLaren, Superintendent.
 *Washington Hospital, Washington.
 *Westmoreland Hospital, Greensburg, Miss W. J. Bairstow, R.N., Superintendent.
 *West Philadelphia Hospital for Women, Philadelphia, Mary R. Lewis, M.D., Medical Director.
 West Side Hospital, Scranton, Miss May Y. Hill, R.N., Superintendent.
 *Wilkes Barre City Hospital, Wilkes Barre, Elmer E. Matthews, Superintendent.
 Women's Southern Homeopathic Hospital, Philadelphia, Lydia Webster Stokes, M.D., Superintendent.

PHILIPPINE ISLANDS

- Union Mission Hospital, Iloilo, Iloilo, J. Andrews Hall, M.D., Director.

RHODE ISLAND

- Homeopathic Hospital of Rhode Island, Providence, Miss E. J. L. Clapp, Superintendent.
 Memorial Hospital, Pawtucket, Miss Ellen M. Selby, Superintendent.
 Providence Lying-in Hospital, Providence, Miss Edwina Porter, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

SOUTH CAROLINA

- Anderson County Hospital, Anderson, Miss Sarah P. Lawrence, R.N., Superintendent.
Baker Sanatorium, Charleston, A. E. Baker, Jr., M.D., Vice-President.
Greenville City Hospital, Greenville, Miss Mary A. Smith, R.N., Superintendent.
**Roper Hospital, Charleston, F. Oliver Bates, Superintendent.

SOUTH DAKOTA

- Methodist Deaconess Hospital, Rapid City, Miss Elva L. Wade, R.N., Superintendent.
**New Madison Hospital, Madison, Miss Irene A. Hohneke, R.N., Superintendent.

TENNESSEE

- Baird-Dulaney Hospital, Dyersburg, E. H. Baird, M.D., Superintendent.
Chattanooga Hospital, Chattanooga, Miss Carolyn E. Ferree, Superintendent.
*Gartley-Ramsay Hospital, Memphis, R. G. Ramsay, Superintendent.
Millie E. Hale Hospital, Nashville, Mrs. J. H. Hale, R.N., Superintendent.
Nashville General Hospital, Nashville, L. J. Hardiman, Superintendent.
Newell and Newell Sanitarium, Chattanooga, W. C. Waller, Superintendent.

TEXAS

- **All Saints Hospital, Fort Worth, Mrs. Alice Taylor, R.N., Superintendent.
*Baptist Hospital, Houston, Robert Jolly, Superintendent.
*Baylor Hospital, Dallas, J. B. Franklin, Superintendent.
***El Paso Masonic Hospital, El Paso, Mrs. A. A. Thompson, R.N., Superintendent.
Robert B. Green Memorial Hospital, San Antonio, H. Philip Hill, M.D., Superintendent.
*Hermann Hospital, Houston, Col., W. A. Childress, Manager.
Lubbock Sanitarium, Lubbock, C. E. Hunt, Superintendent.
Physicians and Surgeons Hospital, Corsicana, S. H. Hornbeak, Superintendent.
Quanah Sanitarium, Quanah, Miss Rosalie C. McDonald, Superintendent.
Sanitarium of Paris, Paris, Miss Elizabeth M. Hilf, Superintendent.
Sherman Hospital, Sherman, E. J. Neathery, M.D., Superintendent.

UTAH

- Dr. W. H. Groves Latter-Day Saints Hospital, Salt Lake City,* B. F. Grant, Superintendent.
Holy Cross Hospital, Salt Lake City, Sister M. Beniti, Superintendent.
St. Mark's Hospital, Salt Lake City, Miss M. E. Hale, Superintendent.
Salt Lake County Hospital, Salt Lake City, A. C. Callister, M.D., Superintendent.
Tooele General Hospital, Tooele, J. A. Phipps, M.D., Owner.

VERMONT

- Mary Fletcher Hospital, Burlington, Thomas S. Brown, M.D., Superintendent.
Rutland Hospital, Rutland, Miss Mary Carr Newell, R.N., Superintendent.
St. Albans Hospital, St. Albans, T. Allen McCormick, M.D., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

VIRGINIA

Edmunds' Hospital, Danville, Mrs. R. V. Blankenship, R.N., Superintendent.
Parrish Memorial Hospital, Portsmouth, Miss Helen E. Brew, R.N., Superintendent.
Stuart Circle Hospital, Richmond, Miss Charlotte Pfeiffer, R.N., Superintendent.

WASHINGTON

Children's Orthopedic Hospital, Seattle, Miss Adeline M. Hughes, R.N., Superintendent.
Oakhurst Sanatorium, Elma, Howard L. Hull, M.D., Superintendent.
St. Joseph's Hospital, Aberdeen, Sister Mary Victorine, Superintendent.
St. Luke's Hospital, Seattle, Mrs. A. M. Arnetz, R.N., Superintendent.
Seattle General Hospital, Seattle, Miss Evelyn H. Hall, R.N., Superintendent.
*Swedish Hospital, Seattle, Miss Elmira Rosengren, R.N., Superintendent.
*Tacoma General Hospital, Tacoma, C. J. Cummings, Superintendent.

WEST VIRGINIA

Hoffman Hospital, Keyser, C. S. Hoffman, Superintendent.
*Martinsburg City Hospital, Martinsburg, T. K. Oates, Superintendent.
Ohio Valley General Hospital Association, Wheeling, C. D. Wilkins, M.D., Superintendent.
*Parkersburg City Hospital, Parkersburg, Miss Emma Vernon, R.N., Superintendent.
St. Luke's Hospital, Bluefield, C. B. Fuqua, Superintendent.

WISCONSIN

Asylum for Mentally Diseased, Wauwatosa, W. F. Beutler, M.D., Superintendent.
Blue Mound Sanatorium, Wauwatosa, Walter L. Mattick, M.D., Acting Superintendent.
*Theda Clark Memorial Hospital, Neenah, Miss Ellen Stewart, R.N., Superintendent.
***Columbia Hospital, Milwaukee, Wm. E. Kiley, M.D., Superintendent.
*Edgerton Memorial Hospital, Edgerton, Miss Ann B. Low, R.N., Superintendent.
Grandview Hospital, La Crosse, A. W. Streicher, Superintendent.
***Hospital for Mental Diseases, Wauwatosa, A. F. Young, M.D., Superintendent.
*Madison General Hospital, Madison, H. K. Thurston, Manager.
Methodist Hospital, Madison, Miss C. M. Fenby, Superintendent.
***Milwaukee Children's Hospital, Milwaukee, Miss Bena M. Henderson, Superintendent.
**Milwaukee County Dispensary, Milwaukee, J. P. Koehler, M.D., Superintendent.
Milwaukee County Home for Children, Wauwatosa, Aug. Kringel, Superintendent.
***Milwaukee County Hospital, Wauwatosa, H. W. Sargeant, M.D., Superintendent.
**Milwaukee County Infirmary, Wauwatosa, T. J. Oeflein, Superintendent.
*Milwaukee Hospital, Milwaukee, Rev. Herm. L. Fritschel, President and Superintendent.
*Milwaukee Infants' Hospital, Milwaukee, Miss Marguerite Brown, R.N., Superintendent.

AMERICAN HOSPITAL ASSOCIATION

- **Milwaukee Maternity and General Hospital, Milwaukee, Miss Estelle A. Berg, R.N., Superintendent.
- *Mount Sinai Hospital, Milwaukee, Miss Helen S. Wipperman, Superintendent.
- Muirdale Sanatorium, Wauwatosa, Glenford L. Bellis, M.D., Superintendent.
- Oconto County and City Hospital, Oconto, Eldred Klauser, Trustee and Superintendent.
- *Roosevelt General Hospital, Milwaukee, Frederick N. Sauer, M.D., Superintendent.
- *St. Luke's Hospital, Racine, Miss Eva C. Greisen, R.N., Superintendent.
- *Wisconsin Deaconess Hospital, Green Bay, Miss Geraldine Borland, R.N., Superintendent.

WYOMING

- Casper Private Hospital, Casper, Mrs. Harry Baker, Superintendent.
- Wheatland Hospital, Wheatland, Fred W. Phifer, M.D., Physician in Charge

CANADA

- *Edmonton Hospital Board, Edmonton, Alberta, Harry R. Smith, M.D., Superintendent.
- Hospital for Sick Children, Toronto, Ontario, Miss Florence J. Potts, Superintendent.
- Hotel Dieu Hospital, Chatham, New Brunswick, Sister Dwyer, Superintendent.
- *Montreal General Hospital, Montreal, Quebec, A. K. Haywood, M.D., Superintendent.
- Montreal Maternity Hospital, Montreal, Quebec, Miss Caroline V. Barrett, R.N., Superintendent.
- *Nicholls' Hospital, Peterboro, Ontario, Mrs. E. M. Leeson, Superintendent.
- St. Joseph's Hospital, Glace Bay, Nova Scotia, Sister M. Ignatius, Superintendent.
- St. Martha's Hospital, Antigonish, Nova Scotia, Sister M. Anthony, Superintendent.
- *Toronto General Hospital, Toronto, Ontario, Chester J. Decker, Superintendent.
- *Vancouver General Hospital, Vancouver, British Columbia, Frederick C. Bell, Superintendent.
- *Victoria Hospital, London, Ontario, G. G. Clegg, M.B., Superintendent.
- *Winnipeg General Hospital, Winnipeg, Manitoba, George F. Stephens, M.D., General Superintendent.
- *Women's College Hospital, Toronto, Ontario, Mrs. H. M. Bowman, R.N., Superintendent.
- Women's Hospital, Montreal, Quebec Miss E. F. Trench, R.N., Lady Superintendent.

ASSOCIATE

CALIFORNIA

- Community Chest of San Francisco, San Francisco, A. T. Davies, Comptroller.

GEORGIA

- General Hospital Board of the Methodist Episcopal Church, South, Atlanta, Rev. C. C. Jarrell, D.D., Executive Secretary.

AMERICAN HOSPITAL ASSOCIATION

ILLINOIS

- *Board of Hospitals and Homes of The Methodist Episcopal Church, Chicago, N. E. Davis, Corresponding Secretary.
- *Illinois Society of Occupational Therapists, Chicago, Mrs. Frederick D. Wood, President.
- National Hospital Day Committee, 537 S. Dearborn St., Chicago, Matthew O. Foley, Executive Secretary.
- Wiebolt Foundation, 3166 Lincoln Ave., Chicago, W. A. Wiebolt, President.
- Woman's Auxiliary Board of the Presbyterian Hospital, 1753 Congress St., Chicago, Mrs. Perkins B. Bass, President.

INDIANA

- Staff of St. Elizabeth Hospital, Lafayette, G. K. Throckmorton, M.D., President.

MISSOURI

- Missouri Association for Occupational Therapy, Euclid Ave. at Kingshighway, St. Louis, Miss Geraldine R. Lermitt, Director.

NEW YORK

- *Cornell University Medical College, 1st Ave. and 28th St., New York City, Walter Niles, Dean.
- *United Hospital Fund of New York, New York City, Frederick D. Greene, General Secretary.

OHIO

- Welfare Federation of Cleveland, Cleveland, Raymond Clapp, Associate Director.

PENNSYLVANIA

- *Bureau of Medical Education and Licensure of Pennsylvania, Pittsburgh, I. D. Metzger, M.D., President.
- Department of Public Welfare of the State of Pennsylvania, Harrisburg, J. M. Baldy, M.D., Commissioner.

FOREIGN

- Department of Health, Wellington, New Zealand, T. H. A. Valentine, Director General of Health.

SUBSCRIBING

- Christchurch Hospital, Christchurch, New Zealand, Walter Fox, M.D., Medical Superintendent.
- Queen's Hospital, Honolulu, T.H., G. C. Potter, Superintendent.

PERSONAL MEMBERS

*Members registering attendance at the 1923 Conference.

NOTE: Type of membership and year of joining Association designated after address.

- *Abel, Miss Augusta E., Superintendent, Lutheran Hospital, Brooklyn, N. Y.—Active, 1921.
- Abrahamson, Miss Florinda O., Superintendent of Nurses, Bethesda Hospital, St. Paul, Minn.—Active, 1922.
- Abrahamson, Louis, President, North Louisiana Sanitarium, Shreveport, La.—Active, 1919.
- Ackerman, R.N., Miss Edith R., Superintendent, Bozeman Deaconess Hospital, Bozeman, Mont.—Active, 1916.
- Adams, Miss Ada F., Box 293, Glastonbury, Conn.—Active, 1916.
- Adams, M.D., Lester, Superintendent, Western Maine Sanatorium, Greenwood Mountain, Maine—Active, 1922.
- Agnes, Sister Mary, Superintendent, St. Mary's Hospital, Clarksburg, W. Va.—Active, 1917.
- Ahern, Rev. Edward J., Chaplain, St. John's Hospital, Cleveland, Ohio—Associate, 1920.
- Aikens, Miss Charlotte A., 138 Parkhurst Place, Detroit, Mich.—Active Life, 1906.
- Ainsworth, M.D., F. K., Chief Surgeon and Manager, Southern Pacific R. R. Hospital, San Francisco, Calif.—Active, 1908.
- Albright, M.D., R. E., Dean of Medical Staff, Sacred Heart Hospital, Allentown, Pa.—Associate, 1923.
- Alderson, M.D., James, Trustee, Finley Hospital, Dubuque, Iowa—Active, 1916.
- Alexander, M.D., A. B., Superintendent, Winnipeg Municipal Hospital, Winnipeg, Manitoba—Active, 1912.
- Alexander, M.D., James R., Secretary, Presbyterian Hospital, Charlotte, N. C.—Active, 1916.
- Alexander, Miss Minnie F. (Address Unknown)—Active, 1921.
- Alexander, Robert, President, Lafayette Home Hospital, Lafayette, Ind.—Active, 1923.
- *Alexandrine, Sister, Superintendent, Seton Hospital, Cincinnati, Ohio—Active, 1921.
- *Alexandrine, Sister, Mount St. Joseph, Ohio—Associate, 1923.
- Alexia, Mother M., Superintendent, Good Samaritan Hospital, Zanesville, Ohio—Active, 1921.
- *Alexius, Sister Rose, Superintendent, Good Samaritan Hospital, Cincinnati, Ohio—Active, 1923.
- Alix, Sister M., St. Mary's Hospital, Evansville, Ind.—Active, 1921.
- *Allen, Miss Bertha W., Superintendent, Newton Hospital, Newton Lower Falls, Mass.—Active, 1916.
- *Allison, Miss Catherine Helen, Superintendent, Winona General Hospital, Winona, Minn.—Active, 1914.
- Allison, Miss Emily C., Superintendent, Mercy Hospital, Altoona, Pa.—Active, 1916.
- *Aloysia, R.N., Sister M., Superintendent, Mercy Hospital of Johnstown, Johnstown, Pa.—Active, 1923.
- *Altschul, David S., Trustee, Bronx Jewish Maternity Hospital, New York City—Active, 1912.

AMERICAN HOSPITAL ASSOCIATION

- *Amadeus, Sister, Superintendent, St. John's Hospital, Cleveland, Ohio—Active, 1918.
- *Ambrose, Sister Mary, Superintendent, Mercy Hospital, Scranton, Pa.—Active, 1922.
- Ament, M.D., Louise, Superintendent, Lutheran Hospital, St. Louis, Mo.—Active, 1921.
- *Ancker, Miss Elizabeth Walton, Superintendent, Burlington County Hospital, Mount Holly, N. J.—Active, 1908.
- Anderson, Albert, Superintendent, State Hospital, Raleigh, N. C.—Active, 1916.
- Anderson, Miss Cora B., Pleasant Plain, Warren County, Ohio—Active, 1922.
- Anderson, Miss Emma A., Superintendent, New England Baptist Hospital, Boston, Mass.—Active, 1917.
- Anderson, R.N., Mrs. H. E., Superintendent, Clinchfield Hospital, Dante, Va.—Active, 1920.
- Anderson, Miss Harriet R., Superintendent, Eagleville Sanatorium and Hospital, Hospital Department, Philadelphia, Pa.—Active, 1923.
- Andrew, M.D., C. F., President Longmont Hospital, Longmont, Colo.—Active, 1922.
- Angela, Sister, Hinde Ball Mercy Hospital, Mount Vernon, Ohio—Active, 1921.
- Annand, Miss Joan R., Superintendent, Western Slope Memorial Hospital, Delta, Colo.—Active, 1922.
- Anshutz, Miss Isadora H., Bloomingdale Hospital, White Plains, N. Y.—Associate, 1922.
- Anstead, Miss Ida J., Superintendent, House of Mercy Hospital, Pittsfield, Mass.—Active, 1922.
- Anthony, DeForest, Trustee, Union Hospital, Fall River, Mass.—Active, 1920.
- *Appel, R.N., Mrs. Katherine, Superintendent, York Hospital and Dispensary, York, Pa.—Active, 1916.
- Aquinas, Sister T., Superintendent, St. Michael's Hospital, Toronto, Ont.—Active, 1923.
- Arey, M.D., Harold C., Hospital Cottages for Children, Baldwinville, Mass.—Active, 1922.
- Ariss, Miss Augusta E., Superintendent, Montana Deaconess Hospital, Great Falls, Mont.—Active, 1915.
- Armstrong, Charles R., Superintendent, Trudeau Sanatorium, Trudeau, N. Y.—Active, 1920.
- Armstrong, M.D., D. B., Community Health and Tuberculosis Demonstration, Framingham, Mass.—Associate, 1918.
- Arnold, Miss Louise F., Superintendent, Hospital Association of the City of Schenectady, Schenectady, N. Y.—Active, 1920.
- Arnstein, Leo, Trustee, Mt. Sinai Hospital, New York City—Active, 1909.
- Ascher, Samuel G., Superintendent, Sinai Hospital, Hartford, Conn.—Active, 1918.
- Ashley, R.N., Mrs. Marian H., Superintendent, General Hospital of Syracuse, Syracuse, N. Y.—Active, 1920.
- *Atkin, R.N., Miss Edith, Superintendent, Amsterdam City Hospital, Amsterdam, N. Y.—Active, 1920.
- Atkins, Mrs. Anna M., Superintendent, Glenwood Sanitarium, Webster Groves, Mo.—Active, 1922.
- Avard, Miss Martha J., Superintendent, Addison Gilbert Hospital, Gloucester, Mass.—Active, 1922.
- Avery, Noyles L., Chairman Executive Committee, Blodgett Memorial Hospital, Grand Rapids, Mich.—Associate Life, 1920.

AMERICAN HOSPITAL ASSOCIATION

- Ayers, Miss Eugenia D., Augusta, Maine—Active, 1913.
- Ayers, Miss Lucy G., Superintendent, Woonsocket Hospital, Woonsocket, R. I.—Active, 1911.
- *Babcock, M.D., W. L., Superintendent, Grace Hospital, Detroit, Mich.—Active Life, 1906.
- *Bachmeyer, M.D., A. C., Superintendent, Cincinnati General Hospital, Cincinnati, Ohio—Active, 1915.
- *Bacon, Asa S., Superintendent Presbyterian Hospital, Chicago, Ill.—Active, Life, 1906.
- *Bacon, M.D., Charles Bowman, Medical Superintendent, New York City Hospital, Welfare Island, N. Y.—Active, 1914.
- Bailey, M.D., Benj. F., Superintendent, Dr. Benj. F. Bailey Sanitarium, Lincoln, Nebr.—Active, 1909.
- Bailey, Jr., George, Superintendent, Englewood Hospital, Englewood, N. J.—Active, 1901.
- Bailey, M.D., Wm. T., Johnstown, Pa.—Active, 1917.
- Bainbridge, M.D., E. H., Superintendent, Bainbridge Private Hospital, Philadelphia, Pa.—Active, 1915.
- Bainbridge, M.D., W. S., 34 Gramercy Park, New York City—Active, 1908.
- Baird, Mrs. Jos. C., 211 Garfield Ave., Eau Claire, Wis.—Active, 1921.
- *Bairstow, R.N., Miss W. J., Superintendent, Westmoreland Hospital, Greensburg, Pa.—Active, 1923.
- Baker, Henry R., Superintendent, Brooklyn Eye and Ear Hospital, Brooklyn, N. Y.—Active, 1916.
- Baker, M.D., Lewis F., Superintendent, Burbank Hospital, Fitchburg, Mass.—Active, 1922.
- Baker, Miss Mary Alberta, Superintendent Henry W. Putnam Memorial Hospital, Bennington, Vt.—Active, 1908.
- Baker, M.D., Norman C., Superintendent, Newport Hospital, Newport, R. I.—Active, 1923.
- Baketel, M.D., H. Sheridan, 16 Fifth Ave., New York City—Associate, 1922.
- Baldwin, Arthur D., President, Cleveland Hospital Council, Cleveland, Ohio—Active, 1916.
- *Baldwin, M.D., Louis B., Superintendent, University Hospital, Minneapolis, Minn.—Active Life, 1912.
- *Ball, M.D., O. F., President, Modern Hospital Publishing Company, Chicago, Ill.—Active Life, 1913.
- Ball, Miss Roberta L., Superintendent, Union Memorial Hospital, Baltimore, Md.—Active, 1913.
- Ballou, Miss R. Josephine, Superintendent, Wyoming Valley Homeopathic Hospital, Wilkes-Barre, Pa.—Active, 1922.
- *Banks, R.N., Miss Ruth, Superintendent of Nurses, Lake County General Hospital, Waukegan, Ill.—Associate, 1923.
- Barbour, W. T., President, Grace Hospital, Detroit, Mich.—Active Life, 1913.
- Barclay, Miss Annie S., Superintendent of Nurses, Franklin County Public Hospital, Greenfield, Mass.—Active, 1916.
- Barker, Miss Helen E., 1727 Athens St., Boulder, Colo.—Associate, 1922.
- *Barnaby, Miss Marietta D., Superintendent, Henry Heywood Hospital, Gardner, Mass.—Active, 1915.
- Barnes, M.D., E. C., Medical Superintendent, Hospital for Mental Diseases, Selkirk, Manitoba—Active, 1921.
- Barnes, S. J., Assistant Superintendent, Pennsylvania Hospital, Philadelphia, Pa.—Active, 1914.
- Barney, Chas. D., Trustee, Hahnemann Hospital, Philadelphia, Pa.—Active, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Barr, Evert S., Superintendent, Philadelphia Hospital for Mental Diseases, Philadelphia, Pa.—Active, 1923.
- Barr, R.N., Miss Mabel, Superintendent, St. Christopher's Hospital for Children, Philadelphia, Pa.—Active, 1922.
- Barr, M.D., Richard E., Director, Frances Ann Litcher Hospital, Orange, Texas—Active, 1922.
- Barr, Miss Winifred, Superintendent, Greenville Hospital, Greenville, Pa.—Active, 1917.
- Barron, Mrs. G. D., Forest Ave., Rye, N. Y.—Active, 1917.
- Barry, Miss Lily E. F., Director and Honorary Secretary, Catholic Social Service Guild, Montreal, Quebec—Associate, 1920.
- *Bartine, O. H., Superintendent, Hospital for Joint Diseases, New York City—Active Life, 1907.
- Bartlett, Miss Ella J., Superintendent, Southwestern Presbyterian Sanatorium, Albuquerque, New Mexico—Active, 1922.
- Bartz, F. O., Superintendent, Bethesda Hospital, Cincinnati, Ohio—Active, 1921.
- Bartz, M.D., Leonard E., Superintendent, Bartz Memorial Hospital, Windsor, Colo.—Active, 1922.
- Bass, Mrs. Perkins B., President, Woman's Auxiliary Board of the Presbyterian Hospital, Chicago, Ill.—Active, 1920.
- *Bates, F. O., Superintendent, Roper Hospital, Charleston, S. C.—Active, 1916.
- Bates, M.D., W. L., Dr. Bates' Sanitarium, Jamestown, R. I.—Active, 1914.
- *Bauch, Miss Laura, Porter Apartments, Lansing, Mich.—Active, 1922.
- *Bauernfeind, Rev. J. H., Superintendent, Evangelical Deaconess Hospital, Chicago, Ill.—Active, 1916.
- *Baum, Clarence H., Superintendent, Lake View Hospital, Danville, Ill.—Active, 1920.
- Baumhoff, Sister Catherine M., Superintendent, New Castle Hospital, New Castle, Pa.—Active, 1922.
- *Baumhoff, Miss Isabelle M., Superintendent, St. Louis Maternity Hospital, St. Louis, Mo.—Active, 1921.
- Bauss, Arthur O., General Superintendent, Mary Day Nursery and Children's Hospital, Akron, Ohio—Active, 1920.
- Baxter, M.D., Donald E., Superintendent, Peking Union Medical College Hospital, Peking, China—Active, 1916.
- Bayne, R.N., Miss Gladys M., 1046 Cote des Neige, Westmount, Quebec—Active, 1920.
- Beach, Mrs. Emmet L., Trustee, Woman's Hospital, Saginaw, Mich.—Active, 1921.
- Beamish, Miss E. M., Box 214, Palmerston, Ont.—Active, 1914.
- Beard, Miss Jessie L., 151 E. 30th St., New York City—Associate, 1920.
- Beattie, Miss Grace B. (Address Unknown)—Active, 1905.
- Beaty, Mrs. F. M., Superintendent of Nurses, New Madison Hospital, Madison, S. Dak.—Active, 1916.
- *Betchel, Miss Emma H., Superintendent, Burge Deaconess Hospital, Springfield, Mo.—Active, 1922.
- *Beddow, Miss Anna M., Superintendent, Norwood Hospital, Inc., Birmingham, Ala.—Active, 1923.
- Beers, Miss Adelaide, Bushkill, Pike County, Pa.—Active, 1921.
- *Beers, Miss Amy, Superintendent, Jefferson County Hospital, Fairfield, Iowa—Active, 1914.
- Beers, Miss Mollie, Superintendent, Cambria Hospital, Johnstown, Pa.—Active, 1912.

AMERICAN HOSPITAL ASSOCIATION

- Behrens, H. F., Trustee, Ohio Valley General Hospital, Wheeling, W. Va.—Active, 1912.
- Behrens, P. W., Superintendent, Toledo Hospital, Toledo, Ohio—Active Life, 1915.
- Bellin, M.D., Julius J., Staff Member, Wisconsin Deaconess Hospital, Green Bay, Wis.—Active, 1921.
- Bengston, Miss Anna L., Superintendent, Middlesex Hospital, Middleton, Conn.—Active, 1922.
- Bennett, M.D., J. E., Medical Superintendent, Eloise Hospital, Eloise, Mich.—Active, 1922.
- Benson, Cyril, Resident Secretary, Pretoria Hospital, Pretoria, South Africa—Associate, 1912.
- *Berhurst, R.N., Miss Frances, Superintendent, Columbus Radium Hospital, Columbus, Ohio—Active, 1922.
- Bernard, Sister M., St. Clare's Hospital, St. Johns, Newfoundland—Active, 1920.
- Bernard, Sister M., Superintendent, St. Mary's Hospital, Grand Rapids, Mich.—Active, 1923.
- *Bernard, Sister M., Superintendent, Mercy Hospital, Wilkes-Barre, Pa.—Active, 1922.
- Bertrand, Sister M., Superintendent, St. Joseph's Hospital, Baltimore, Md.—Active, 1918.
- Bescherer, Miss Frances H. (Address Unknown)—Active, 1918.
- Bevans, James L., Superintendent, John D. Archbold Memorial Hospital, Thomasville, Ga.—Active, 1924.
- Biddle, M.D., C. J., Superintendent and Surgeon in Chief, State Hospital for Injured Persons, Ashland, Pa.—Active, 1922.
- Bigelow, Walter K., Trustee, Salem Hospital, Salem, Mass.—Active, 1921.
- Bigelow, Wilbur B., Superintendent, Salem Hospital, Salem, Mass.—Active, 1911.
- *Biggs, M.D., M. O., Superintendent, State Hospital No. 1, Fulton, Mo.—Active, 1922.
- Binger, Miss Mary L., Superintendent, Orthopaedic Hospital School, Los Angeles, Calif.—Active, 1917.
- Biscoe, Maurice B., 50 Congress St., Boston, Mass.—Associate, 1922.
- Bishop, R.N., Miss Florence A., Superintendent, King's Daughters' Hospital, Portsmouth, Va.—Active, 1921.
- *Bishop, Howard E., Superintendent, Robert Packer Hospital, Sayre, Pa.—Active Life, 1913.
- Bitzer, M.D., Newton E., Medical Director, St. Joseph's Hospital, Lancaster, Pa.—Associate, 1918.
- *Blandena, Sister M., Superintendent, Mercy Hospital, Portsmouth, Ohio—Active, 1922.
- Blankenship, Mrs. R. V., Superintendent, Edmunds' Hospital, Danville, Va.—Associate, 1917.
- Blatchford, Miss Barbara, Occupational Therapy Department, Presbyterian Hospital, Chicago, Ill.—Associate Life, 1921.
- Blodgett, John W., G. R. Savings Building, Grand Rapids, Mich.—Active Life, 1908.
- Blodgett, Mrs. J. W., Trustee, D. A. Blodgett Home for Children, Grand Rapids, Mich.—Active, 1923.
- Bloxham, Miss Nellie L., Superintendent, Day-Kimball Hospital, Putnam, Conn.—Active, 1918.
- Bluestone, M.D., E. M., Assistant Director, Mt. Sinai Hospital, New York City—Active, 1921.

AMERICAN HOSPITAL ASSOCIATION

- Blumberg, M.D., A. L., Superintendent, Ex-Patients' Tuberculosis Home, Denver, Colo.—Associate, 1922.
- Blumenthal, George, President, Mt. Sinai Hospital, New York City—Active, 1916.
- *Boas, M.D., E. P., Medical Director, Montefiore Hospital for Chronic Diseases, New York City—Active, 1922.
- Bock, Miss Edna C., Sandusky, Ohio—Associate, 1920.
- *Boekhaus, Sister Charlotte, Evangelical Deaconess Home and Hospital, St. Louis, Mo.—Associate, 1923.
- Bogges, M.D., J. S., U. S. Marine Hospital No. 21, Stapleton, S. I., New York—Active, 1921.
- Booker, Miss Elizabeth M., Superintendent, Corey Hill Hospital, Brookline, Mass.—Active, 1916.
- Booth, Mrs. Edmund W., Trustee, Butterworth Hospital, Grand Rapids, Mich.—Associate, 1921.
- *Borden, Richard P., Trustee, Union Hospital, Fall River, Mass.—Active Life, 1909.
- Borie, Jr., Beauveau, Trustee, Pennsylvania Hospital, Philadelphia, Pa.—Active, 1920.
- *Borland, R.N., Miss Geraldine, Superintendent, Wisconsin Deaconess Hospital, Green Bay, Wis.—Active, 1920.
- Boskill, Miss Claudia (Address Unknown)—Associate, 1914.
- Bosworth, M.D., Robinson, 814 Lowry Bldg., St. Paul, Minn.—Active, 1912.
- Bourke, Rev. M. P., Superintendent, Catholic Hospitals in Eastern Michigan, Ann Arbor, Mich.—Active, 1921.
- Boutelle, Mrs. K. Y., Assistant Superintendent and Superintendent of Nurses, Mount Sinai Hospital, Hartford, Conn.—Active, 1923.
- *Bowman, Mrs. H. M. F., Superintendent, Women's College Hospital, Toronto, Ont.—Active, 1920.
- Bowman, L.L.D., John G., President, Pittsburgh University, Pittsburgh, Pa.—Active, 1918.
- Bradford, M.D., Joel P., Superintendent, Acushnet Sanitarium, Acushnet, Mass.—Active, 1922.
- Bradley, R. M., Trustee, Brattleboro Memorial Hospital, Brattleboro, Vt. (60 State St., Boston, Mass.)—Active, 1913.
- Bradshaw, R.N., Mrs. Mabel, Superintendent of Nurses, Hanover Hospital, Milwaukee, Wis.—Associate, 1921.
- *Brainerd, Miss Winifred, Occupational Therapy Department, Presbyterian Hospital, Chicago, Ill.—Associate, 1921.
- Brannan, M.D., John W., Trustee, Bellevue and Allied Hospitals, New York City—Active, 1908.
- Brass, Miss Josephine T. W., Superintendent, Neponsit Beach Hospital for Children, Rockaway Park, L. I., N. Y.—Active, 1922.
- *Braun, Sister Carolina, Superintendent, Protestant Deaconess Hospital, Evansville, Ind.—Active, 1921.
- Braun, R.N., Miss Eva M., Superintendent, Suburban General Hospital, Bellevue, Pa.—Active, 1922.
- Bray, William C., Trustee, Newton Hospital, Newton Lower Falls, Mass.—Active, 1910.
- Breeze, Miss Jessie, Director Social Service, Presbyterian Hospital, Chicago, Ill.—Associate, 1920.
- Breiting, W. M., Superintendent, Reading Hospital, Reading, Pa.—Active, 1918.
- Bremerman, Miss Margaret, Superintendent, Bremerman Hospital, Chicago, Ill.—Active, 1921.

AMERICAN HOSPITAL ASSOCIATION

- *Bresnahan, M.D., John F., Superintendent, Bridgeport Hospital, Bridgeport, Conn.—Active, 1914.
- Brian, R.N., Miss Celia, Superintendent, Danville General Hospital, Danville, Va.—Active, 1913.
- Bridget, Mother, Superintendent, St. John's Hospital, Fargo, N. Dak.—Active, 1917.
- Bridgman, Mrs. Statira M., Superintendent, County Branch New York Orthopaedic Hospital, White Plains, N. Y.—Active, 1920.
- Briggs, R.N., Mrs. Charlotte A., 260 Washington St., Salem, Mass.—Active, 1917.
- Briggs, G. Loring, Manager, Boston Floating Hospital, Boston, Mass.—Active, 1909.
- Brimmer, Carl A., Assistant Superintendent, Touro Infirmary, New Orleans, La.—Active, 1922.
- Brinkley, M.D., M. T., Anesthetist, Brinkley-Jones Hospital Association, Milford, Kan.—Active, 1921.
- Brinton, Miss Bessie C., East Cleveland, Ohio—Associate, 1918.
- *Britton, Miss Bettie C., Head of Social Service, East Louisiana Hospital, Jackson, La.—Associate, 1922.
- Broadhurst, Miss Jessie, Broad Street Hospital, Oneida, N. Y.—Active Life, 1915.
- Brodrick, M.D., Francis S., Executive Assistant, Boston City Hospital, Boston, Mass.—Associate, 1921.
- *Brodrick, M.D., R. G., Director of Hospitals, Alameda County Hospital, San Leandro, Calif.—Active, 1920.
- Brokaw, R.N., Miss Maude, Superintendent, Bellevue Hospital, Bellevue, Ohio—Active, 1922.
- *Brooke, Frank E., Superintendent, Harrisburg Hospital, Harrisburg, Pa.—Active, 1922.
- Brooks, William Allen, Trustee, Brooks Hospital, Brookline, Mass.—Active, 1917.
- Brooks, Miss Winifred H., Superintendent, Wesson Maternity Hospital, Springfield, Mass.—Active, 1908.
- *Brown, H. A., Deputy and Acting Commissioner, Public Welfare, Westchester County, East View, N. Y., Trustee, Grasslands Hospital, Valhalla, N. Y.—Active, 1923.
- Brown, Miss Katharine, Superintendent, Bryn Mawr Hospital, Bryn Mawr, Pa.—Active, 1922.
- *Brown, Miss Margaret, Superintendent, St. Johns Hospital, St. Johns, Mich.—Active, 1921.
- *Brown, R.N., Miss Marguerite D., Superintendent, Milwaukee Infants' Hospital, Milwaukee, Wis.—Active, 1921.
- Brown, Miss Nora A., Superintendent, Symmes Arlington Hospital, Arlington, Mass.—Active, 1922.
- Brown, Miss Olive J., Plymouth, Mich.—Associate, 1922.
- Brown, M.D., Robert, Superintendent, Fairmount Hospital, San Francisco, Calif.—Active, 1917.
- *Brown, M.D., Thomas S., Superintendent, Mary Fletcher Hospital, Burlington, Vt.—Active, 1920.
- Browne, Mrs. D. I., President, Morningside Hospital, Tulsa, Okla.—Active, 1917.
- Bruce, Frank, Hospital Progress, Milwaukee, Wis.—Associate, 1921.
- *Bruce, William C., Editorial Board, Hospital Progress, Milwaukee, Wis.—Associate, 1920.
- Brush, M.D., Frederic, Superintendent, Burke Foundation, White Plains, N. Y.—Active, 1909.

AMERICAN HOSPITAL ASSOCIATION

- Buckley, M.D., James B., Powelton Apartments, 36th and Powelton, West Philadelphia, Pa.—Active, 1918.
- Buckman, M.D., Ernest U., President, Wilkes-Barre City Hospital, Wilkes-Barre, Pa.—Active, 1921.
- Buckwalter, Miss W. G., Superintendent, American Oncologic Hospital, Philadelphia, Pa.—Active, 1922.
- Bugbee, M. D., Marion L., Physician in Charge, New Hampshire Memorial Hospital for Women and Children, Concord, N. H.—Active, 1920.
- Bumstead, L. A., Superintendent, Delaware Springs Sanatorium, Delaware, Ohio—Active, 1921.
- Burbeck, M. D., Edward K., President, Devereux Mansion, Inc., Marblehead, Mass.—Active, 1923.
- *Burgan, John L., Superintendent, Abington Memorial Hospital, Abington, Pa.—Active, 1911.
- *Burke, R.N., Mrs. M. D., Superintendent, Glens Falls Hospital, Glens Falls, N. Y.—Active, 1922.
- Burley, Jacob H., Superintendent, Burley Hospital, Almont, Mich.—Active, 1921.
- *Burlingame, M. D., C. C., Executive Officer, Joint Administrative Board, Columbia University—Presbyterian Hospital, New York City—Active, 1921.
- *Burlingame M.D., Louis H., Superintendent, Barnes Hospital, St. Louis, Mo.—Active, 1909.
- *Burman, R.N., Miss Mary G., Superintendent, Children's Mercy Hospital, Kansas City, Mo.—Active, 1922.
- Burns, Miss Edith L., Superintendent, Rome Hospital, Rome, N. Y.—Active, 1919.
- Burns, Miss Mary A., 28 Ferris St., St. Albans, Vt.—Active Life, 1908.
- Burns, Miss Sara, Superintendent, New York Skin and Cancer Hospital, New York City—Active, 1908.
- Burt, Mrs. Bertha Hart, Superintendent, Hart Private Hospital, Roxbury, Mass.—Active, 1917.
- Busch, R.N., Miss Olga, 225 Fulton St., Sandusky, Ohio—Active, 1920.
- *Butler, Charles, Trustee, Society for the Relief of Homeless Orphans, New York City—Active, 1913.
- Butterfield, M.D., Allen C., Chief of Obstetrical Department, St. Mary's Hospital, Grand Rapids, Mich.—Active, 1921.
- Byam, Miss Rye, 807 Judson Ave., Evanston, Ill.—Associate, 1922.
- Byers, R.N., E. Leonore, Superintendent, Indiana Hospital, Indiana, Pa.—Active, 1920.
- Byrne, R.N., Miss A. Isabelle, Superintendent, Sloane Hospital for Women, New York City—Active, 1924.
- Caddy, R.N., Miss Eva, Directress of Nurses, Hospital of St. Barnabas, Newark, N. J.—Active, 1915.
- *Caldwell, M.D., B. W., Superintendent, University Hospital, Iowa City, Iowa—Active, 1916.
- Calman, Henry L., Trustee, Mount Sinai Hospital, New York City—Active, 1910.
- Campbell, R.N., Miss Mary C., Superintendent, Palmsetgaef Sanatorium, Prescott, Ariz.—Active, 1922.
- Candlish, Alexander H., Superintendent, Vassar Brothers Hospital, Poughkeepsie, N. Y.—Active, 1909.
- Cann, Miss Jessie M., 191 Main St., Hackensack, N. J.—Active, 1922.
- *Cannon, Miss Ida M., Director of Social Service Department, Massachusetts General Hospital, Boston, Mass.—Associate, 1918.

AMERICAN HOSPITAL ASSOCIATION

- *Cannon, Miss Mary Antoinette, New York School of Social Work, New York City—Associate, 1918.
- *Canton, Gerard T., Superintendent, St. Luke's Hospital, Chicago, Ill.—Active, 1923.
- Carden, Miss Bella, Buhl Hospital, Sharon, Pa.—Associate, 1922.
- Carlinger, Jacob, Jewish Memorial Hospital, New York City—Active, 1921.
- Carson, Miss Lillian H., Superintendent, Women's Homeopathic Hospital, Philadelphia, Pa.—Active, 1913.
- Carter, M.D., Amos, Superintendent, Indiana State Sanatorium, Rockville, Ind.—Active, 1921.
- Cary, M.D., Raymond J., 1004 Pacific S. W. Bldg., Long Beach, Calif.—Active, 1915.
- *Castelaw, M.D., Rush E., Superintendent, Christian Church Hospital, Kansas City, Mo.—Active, 1918.
- Cathcart, Alexander, President, St. Luke's Hospital, St. Paul, Minn.—Associate, 1922.
- *Catton, Miss Jessie E., Superintendent, New England Hospital for Women and Children, Boston, Mass.—Active, 1911.
- Chambers, R.N., Mrs. L. A., 21 Winston Place, Rochester, N. Y.—Active, 1916.
- *Chapman, F. E., Director, Mount Sinai Hospital, Cleveland, Ohio—Active Life, 1913.
- Chapman, J. W., Superintendent, Independence Hospital, Independence, Mo.—Active, 1921.
- *Chapman, R.N., Miss Mabel E., Superintendent, Illinois General Hospital, Chicago, Ill.—Active, 1922.
- *Chappell, Miss Frances, Francisco, Ind.—Active, 1913.
- Charles, Sister M., Mercy Hospital, Canton, Ohio—Active, 1921.
- *Chassaignac, M.D., Charles, Trustee and Superintendent, Eye, Ear, Nose and Throat Hospital, New Orleans, La.—Active, 1923.
- Cheney, L. R., President, Hartford Hospital, Hartford, Conn.—Active, 1921.
- Cherney, Miss Julia, Superintendent, Levering Hospital, Hannibal, Mo.—Active, 1922.
- Chesley, M.D., A. J., Secretary and Executive Officer, Minnesota State Board of Health, St. Paul, Minn.—Active, 1919.
- Christian, M.D., Henry A., Medical Staff, Peter Bent Brigham Hospital, Boston, 17, Mass.—Associate Life, 1914.
- Christie, R.N., Mrs. E. Beatrice, Assistant Superintendent of Nurses, Metropolitan Hospital, Welfare Island, N. Y.—Associate, 1922.
- *Christie, Miss Jessie F., Superintendent, Chicago Lying-in Hospital and Dispensary, Chicago, Ill.—Active, 1921.
- Church, Miss Lucy E., Marion City Hospital, Marion, Ohio—Active, 1921.
- Cimmerer, Mrs. J. A., Trustee, Woman's Hospital, Saginaw, Mich.—Active, 1921.
- Clancy, R.N., Miss Marguerite J., Supervisor, City Department of Health, Clinics and Nursing Service, Charleston, W. Va.—Associate, 1918.
- Clapp, Miss Edith J. L., Superintendent, Homeopathic Hospital, Providence, R. I.—Active, 1916.
- Clark, Mrs. B. R., Trustee, Alice Hyde Memorial Hospital, Malone, N. Y.—Active, 1922.
- Clark, Charles B., President, Theda Clark Memorial Hospital, Neenah, Wis.—Active, 1911.
- Clark, M.D., J. Clement, Superintendent, Springfield State Hospital, Sykesville, Md.—Active, 1909.
- Clark, Miss Mary A., Superintendent, Eagleville Sanatorium, Eagleville, Pa.—Active, 1916.

AMERICAN HOSPITAL ASSOCIATION

- *Clark, Pliny O., Windsor, Ashtabula County, Ohio—Active, 1911.
- Clark, M.D., Raymond, Brooklyn Hospital, Brooklyn, N. Y.—Active, 1916.
- Clark, W. Julian, Superintendent, Columbia Hospital, Columbia, S. C.—Active, 1918.
- Clarke, Mrs. Ethel P., Superintendent of Nurses, Robert W. Long Hospital, Indianapolis, Ind.—Active, 1921.
- *Clay, R.N., Miss E. D., Superintendent, John Sealy Hospital, Galveston, Tex.—Active, 1921.
- Clayton, M.D., P. B., Manager, Grace Hospital, Kansas City, Mo.—Active, 1921.
- Cleave, Miss K. Frances, Assistant to Director of Nursing Service, Child Health Demonstration, Mansfield, Ohio—Associate, 1918.
- *Cleaver, Miss Amy F., Social Service Department, St. Luke's Hospital, New York City—Associate, 1918.
- *Clegg, M. B., G. G., Superintendent, Victoria Hospital, London, Ont.—Active, 1923.
- Clemens, Richard, Trustee Union Hospital, New Philadelphia, Ohio—Active, 1921.
- Clinton, M.D., Fred S., Oklahoma Hospital, Tulsa, Okla.—Associate, 1917.
- Clover, Rev. George F., Superintendent, St. Luke's Hospital, New York City—Active, 1909.
- Cochran, R. N., Miss Julia, 176 Ohio St., Bangor, Maine—Active, 1923.
- Cocke, Miss Dora E., Superintendent, Goldsboro Hospital, Goldsboro, N. C.—Active, 1918.
- Cohen, Mrs. Dora R., Manager, I. N., Cohen's Private Sanatorium, La Crosse, Wis.—Active, 1921.
- Cohoon, M.D., E. H., Superintendent, Medfield State Hospital, Harding, Mass.—Active, 1923.
- Coil, M.D., Paul E., Head of Surgical Staff, Amanda Coil Hospital, Mexico, Mo.—Active, 1922.
- Colburn, R.N., Miss Edith, Box 2013, Fresno, Calif.—Active, 1920.
- Cole, M.D., L. G., Medical and Executive Director, Blossburg State Hospital, Blossburg, Pa.—Active, 1922.
- Coleman, Miss Annie M., Inspector, Michigan Schools of Nursing, Lansing, Mich.—Associate, 1915.
- *Coleman, Miss Laura E., Superintendent, Milton Hospital, Milton, Mass.—Active, 1905.
- *Coleman, Miss Louise M., Superintendent, House of the Good Samaritan, Boston, Mass.—Active, 1905.
- *Collin, R.N., Miss Elizabeth, Superintendent, Ottumwa Hospital, Ottumwa, Iowa—Active, 1923.
- Collins, R.N., Miss Clara M. (address unknown)—Active, 1921.
- Collins, M.D., E. F., Assistant Superintendent, Grace Hospital, Detroit, Mich.—Active, 1917.
- Collins, M.D., Herbert O., Director, General Hospital, Fresno, Calif.—Active, 1909.
- Combs, Alfred, Trustee, Good Samaritan Hospital, Lexington, Ky.—Active, 1913.
- *Combs, M.D., Charles N., Superintendent, Union Hospital, Terre Haute, Ind.—Active, 1921.
- Combs, Mary H., Director, Social Service, Brooklyn Hospital, Brooklyn, N. Y.—Associate, 1920.
- Comings, J. R., Manager, Fairmont Hospital, Kalamazoo, Mich.—Active, 1922.

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- Conard, M.D., Robert, Hospital, Western Branch, National Home for Disabled Volunteer Soldiers, National Military Home, Kansas—Active, 1923.
- Condon, William M., 839 Hancock St., Brooklyn, N. Y.—Active, 1916.
- Congdon, Edward C., Trustee, St. Luke's Hospital Association, Duluth, Minn.—Active, 1920.
- Conklin, Mrs. Mary Stone, Superintendent, Hackensack Hospital, Hackensack, N. J.—Active, 1916.
- *Conley, M.D., Walter H., Medical Superintendent, Metropolitan Hospital, Welfare Island, N. Y.—Active, 1911.
- Conoley, R.N., Miss Mary D., Superintendent, Morrell Memorial Hospital, Lakeland, Fla.—Active, 1922.
- Cook, Miss Melissa, Superintendent, Melrose Hospital, Melrose, Miss.—Active, 1913.
- Coon, M.D., J. W., President and Medical Director, River Pines Sanatorium, Stevens Point, Wis.—Active, 1915.
- Coon, M.D., William Hall, Health Officer, Department of Health, Bridgeport, Conn.—Active, 1921.
- Cooney, Miss Frances S., Superintendent, Northwestern Hospital, Princeton, Minn.—Active, 1917.
- Cooper, Miss Lena F., Dietitian, Battle Creek Sanitarium, Battle Creek, Mich.—Associate, 1918.
- *Copeland, Miss Gertrude E., Superintendent, Independence Sanitarium, Independence, Mo.—Active, 1922.
- Corbett, R.N., Miss L. E., Superintendent, Brooks Hospital, Brookline, Mass.—Active, 1920.
- Corcoran, R.N., Miss Mary G., Superintendent, Flagler Hospital, St. Augustine, Fla.—Active, 1922.
- Cornish, Miss Louzetta E., 128 Atlantic St., Atlantic City, N. J.—Active, 1919.
- Cornwall, R.N., Miss B. (address unknown)—Active, 1920.
- *Correll, M.D., Paul, Physician in Charge, Correll's Hospital, Easton, Pa.—Active, 1917.
- Corwin, M.D., R. W., Superintendent, Minnequa Hospital, Pueblo, Colo.—Active Life, 1915.
- *Cosgrove, C. B., Superintendent, New York City Home and Central Neurological Hospital, Welfare Island, N. Y.—Active, 1922.
- Cowan, Miss Margaret B., Superintendent, Presque Isle General Hospital, Presque Isle, Maine—Active, 1918.
- *Cowles, Miss Annette B., Superintendent, Children's Free Hospital, Louisville, Ky.—Active, 1913.
- Cox, Miss Edith, Superintendent, Robert Breck Brigham Hospital, Boston, Mass.—Active, 1913.
- Cox, Miss E. Murray, Superintendent, Baltimore Eye and Ear Hospital, Baltimore, Md.—Active, 1921.
- *Crafts, R.N., Miss Grace T., Superintendent of Nurses, Madison General Hospital, Madison, Wis.—Active, 1922.
- Craig, Miss Jane, Principal of Training School, Western Hospital, Montreal, Quebec—Active, 1920.
- *Crain, Jr., G. D., 537 S. Dearborn St., Chicago, Ill.—Associate, 1916.
- Cramer, L. H., President, Saratoga Hospital, Saratoga Springs, N. Y.—Active, 1921.
- *Cramer, M.D., William E., Manager and Treasurer, Grace Hospital, Kansas City, Mo.—Active, 1923.
- Crandell, R.N., Edna M., 623 Chapin St., Cadillac, Mich.—Active, 1920.

- Cratty, John M., Superintendent, Long Island College Hospital, Brooklyn, N. Y.—Active, 1915.
- *Cree, Arch. C., General Superintendent, Georgia Baptist Hospital, Atlanta, Ga.—Active, 1923.
- Creelman, Miss Bertha P., Superintendent, Ashtabula General Hospital, Ashtabula, Ohio—1922.
- Cresson, Miss Dorothy L., Superintendent, Howard Hospital, Philadelphia, Pa.—Active, 1922.
- *Crew, M.D., E. R., Superintendent, Miami Valley Hospital, Dayton, Ohio—Active, 1912.
- Crossland, Mrs. Nellie F. W., care of Dr. Robert H. Ivy, 34 Pennock Terrace, Lansdowne, Pa.—Active, 1919.
- Croughan, Patrick J., Superintendent, Paterson Isolation Hospital, Paterson, N. J.—Active, 1916.
- Crow, William D., Trustee, St. Barnabas Hospital, Newark, N. J.—Active, 1916.
- Crowe, R.N., Miss Jessie L., Superintendent, Dr. Correll's Hospital, Easton, Pa.—Active, 1920.
- Crozier, Miss Katherine M., Superintendent, Heaton Hospital, Montpelier, Vt.—Active, 1922.
- *Culbertson, R.N., Miss N. Blanche, Superintendent, Mahaska Hospital, Oskaaloosa, Iowa—Active, 1920.
- Cullen, M.D., Thomas S., Johns Hopkins Hospital, Baltimore, Md.—Associate, 1914.
- *Cumming, Miss Margaret M., Sharon, Pa.—Active Life, 1909.
- *Cummings, C. J., Superintendent and Manager, Tacoma General Hospital, Tacoma, Wash.—Active, 1921.
- Cummings, Miss N. F., Charge of Social Service Department, Stanford Clinics, San Francisco, Calif.—Associate, 1918.
- Cummins, Miss M. L., Superintendent, Charter Oak Private Hospital, Hartford, Conn.—Active, 1911.
- Curry, Miss Margaret J., Elko General Hospital, Elko, Nevada—Associate, 1914.
- Curtis, Charles P., President, Peter Bent Brigham Hospital, Boston, Mass.—Active Life, 1916.
- Curtis, Miss Hannah, Director Social Service, State House, Boston, Mass.—Associate, 1920.
- Curtis, Louis R., Vice-President, St. Luke's Hospital, Chicago, Ill.—Active, 1904.
- Curtis, Nelson, President, Faulkner Hospital, Boston, Mass.—Active, 1921.
- Cushman, Miss Alice C. S., Superintendent of Training School, Brockton Hospital, Brockton, Mass.—Active, 1913.
- Cushman, Mrs. Oca, Superintendent, Children's Hospital, Denver, Colo.—Active, 1910.
- Dahlgren, Miss Emelia, Superintendent, Lutheran Hospital, Moline, Ill.—Active, 1907.
- *Daily, Miss Frances C., Assistant Administrator, St. Louis Children's Hospital—Active, 1922.
- Dailey, M.D., Ulysses G., 4356 Calumet Ave., Chicago, Ill.—Associate, 1916.
- Daley, John C., Superintendent, Union Printers' Home and Tuberculosis Sanatorium, Colorado Springs, Colo.—Active, 1922.
- Dalton, H. G., Trustee, Lakeside Hospital, Cleveland, Ohio—Active, 1920.
- *Daniel, Miss Emily, Superintendent, Detroit Osteopathic Hospital, Detroit, Mich.—Active, 1923.
- Danner, R.N., Miss Katherine M., Superintendent, Middletown Hospital, Middletown, Ohio—Active, 1920.

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- Darling, M.D., U. G., Columbus Memorial Bldg., Chicago, Ill.—Active, 1921.
- Darrach, Charles G., 5825 Willows Ave., Philadelphia, Pa.—Honorary, 1904.
- Datesman, Mrs. Sabra H., Superintendent of Nurses, Metropolitan Hospital, Welfare Island, N. Y.—Associate, 1922.
- Daugherty, Miss Fannie A., Superintendent, Philipsburg State Hospital, Philipsburg, Pa.—Active, 1916.
- Daugherty, M.D., John E., Executive Director, Jewish Hospital, Brooklyn, N. Y.—Active, 1916.
- Davids, Miss Anna H., Superintendent, Brookville Hospital, Brookville, Pa.—Active, 1919.
- *Davidson, Sidney G., Superintendent, Butterworth Hospital, Grand Rapids, Mich.—Active, 1918.
- d'Avignon, M.D., T. J., Saranac Lake General Hospital, Saranac Lake, N. Y.—Active, 1922.
- *Davis, R.N., Miss Carolyn E., Superintendent, Minor Hospital, Seattle, Wash.—Active, 1923.
- Davis, Miss Clara A., Dr. McGirk Sanitarium, Philipsburg, Pa.—Associate, 1923.
- Davis, Miss E. Mildred, Superintendent, Bayonne Hospital and Dispensary, Bayonne, N. J.—Active, 1919.
- Davis, M.D., F. Elbert, 620 Riverside Drive, New York City—Active, 1922.
- Davis, Frank E., Trustee, Cooley-Dickinson Hospital, Northampton, Mass.—Active, 1921.
- Davis, Jr., Michael M., Director, Committee on Dispensary Development, New York City—Active, 1912.
- Davis, Miss Nellie, 469 Franklin St., Buffalo, N. Y.—Associate, 1913.
- Davis, Mrs. Nettie S., care of Jacobsgaard and Jorgenson, Anderkofsky, Ala.—Active, 1913.
- Davis, R.N., Miss Ruth, Superintendent, Vaughan Memorial Hospital, Selma, Ala.—Active, 1922.
- *Davison, Miss Nina P., Superintendent, Watts Hospital, West Durham, N. C.—Active, 1916.
- *Dawkins, Thomas F., Superintendent-Manager, Wichita Hospital, Wichita, Kansas—Active, 1923.
- Day, Miss Lettie E., Ypsilanti, Mich.—Active, 1921.
- Dean, Miss Eva E., Assistant Superintendent, Wyoming Valley Homeopathic Hospital, Wilkes-Barre, Pa.—Active, 1922.
- Dean, Morton, Superintendent, Lexington Hospital, New York City—Active, 1922.
- Deane, Miss P. M., First Aid Hospital, Great Northern Paper Co., Mil-
linocket, Maine—Associate, 1922.
- *Deaver, Miss Mary Florence, Superintendent of Nurses, Christ Hospital, Cincinnati, Ohio—Associate, 1912.
- Deemer, Harold D., Trustee, Wilkes-Barre City Hospital, Wilkes-Barre, Pa.—Active, 1923.
- DeForest, Robert, Trustee, Presbyterian Hospital, New York City—Active, 1911.
- DeGroat, M.D., H. K., Medical Superintendent, Department of Hospitals and Dispensaries, Buffalo, N. Y.—Active, 1918.
- *DeLaney, Miss Gertrude, Assistant Superintendent, Rochester General Hospital, Rochester, N. Y.—Active, 1922.
- DeLong, R.N., Miss M. Della, Superintendent, Grace Hospital, Kansas City, Mo.—Active, 1923.
- DeMuth, Miss Frances M., Assistant Superintendent, City Hospital, Fall River, Mass.—Active, 1913.

- Demuth, George, Superintendent, Lucas County Hospital, Toledo, Ohio—Active, 1922.
- Denison, M.D., A. B., Director, Lakeside Hospital, Cleveland, Ohio—Active, 1920.
- *Denton, Miss Emily, Superintendent, General Hospital, Saranac Lake, N. Y.—Active, 1916.
- Denton, Miss Nellie, Assistant Superintendent, General Hospital, Saranac Lake, N. Y.—Associate, 1921.
- dePaul, Sister Mary, Superintendent, Providence Hospital, Beaver Falls, Pa.—Active, 1922.
- Devan, M.D., Thomas Allen, 263 Lawrence Ave., New Brunswick, N. J.—Associate, 1914.
- DeWitt, Mrs. H. N. B., Trustee, General Hospital, Saginaw, Mich.—Active, 1923.
- Dice, Mrs. Clara R., 1545 E. 86th St., Suite 7, Cleveland, Ohio—Active, 1915.
- Diehl, Charles F., Superintendent, St. John's Riverside Hospital, Yonkers, N. Y.—Active, 1918.
- Diehm, Frederick H., 519 Alabama Ave., Indianapolis, Ind.—Active, 1921.
- Dietrichson, R.N., Miss Levina S., Superintendent, Forest Lawn Sanatorium, Jefferson, Wis.—Active, 1916.
- Dikeman, Mrs. Elizabeth McClaskie, 3844 Euclid Ave., Cleveland, Ohio—Active, 1917.
- *Dillon, R.N., Miss Irene, Superintendent, Lakeview Memorial Hospital, Stillwater, Minn.—Active, 1921.
- Dixon, M.D., Willis L., St. Mary's Hospital, Grand Rapids, Mich.—Active, 1921.
- Doane, M.D., J. C., Medical Director, Philadelphia General Hospital, Philadelphia, Pa.—Active, 1922.
- Doane, M.D., W. H., Highland Hospital, Rochester, N. Y.—Active, 1921.
- Dobson, M.D., Wm. M., Medical Officer in Charge, U. S. Veterans' Hospital No. 49, Philadelphia, Pa.—Active, 1923.
- *Dodd, Louis F., Chairman Board of Managers, Overbrook Hospital, Verona, N. J.—Active, 1923.
- Dodge, Irving P., Commonwealth Avenue Hospital, Boston, Mass.—Active, 1922.
- Doherty, Angelo, Assistant Superintendent, Cincinnati General Hospital, Cincinnati, Ohio—Active, 1920.
- Doherty, Miss Ethel M., Superintendent, Holyoke City Hospital, Holyoke, Mass.—Active, 1914.
- Dominic, Sister M., Wheeling Hospital, Wheeling, W. Va.—Active, 1917.
- Donewirth, Miss Ida, R.N., 1335 Logan Ave., Canton, Ohio—Active, 1922.
- Donlan, Charles E., Director, Glennock Hospital, Malden, Mass.—Active, 1921.
- Douglas, C. L., Assistant Superintendent, Harper Hospital, Detroit, Mich.—Active, 1923.
- Dowden, Miss Imilda L., Superintendent, W. B. Plunkett Memorial Hospital, Adams, Mass.—Active, 1922.
- Dowling, Miss Delia G., Fifth Avenue Hospital, New York City—Active, 1916.
- Dowling, John J., Superintendent, Boston City Hospital, Boston, Mass.—Active, 1915.
- Drescher, William A. E., Trustee, Rochester General Hospital, Rochester, N. Y.—Active, 1914.
- *Drew, M.D., Charles A., Superintendent, Worcester City Hospital, Worcester, Mass.—Active, 1909.

AMERICAN HOSPITAL ASSOCIATION

- *Drew, M.D., John A., Superintendent, Chester Hospital, Chester, Pa.—Active, 1920.
- Druggan, Miss Elsie, Athens College, Athens, Ohio—Active, 1920.
- Drummond, J. J., Manager, The Kahler Corporation, Rochester, Minn.—Active, 1921.
- *Dubin, Maurice, Superintendent, Bronx Hospital, New York City—Active, 1921.
- Duemling, M.D., H. A., Lutheran Hospital, Fort Wayne, Ind.—Active, 1921.
- Duffy, John, President, Blodgett Memorial Hospital, Grand Rapids, Mich.—Active, 1923.
- *Dunbar, Capt. A. W., Commanding Officer, Naval Hospital, Philadelphia, Pa.—Active, 1922.
- Duncan, Mrs. Nettie M., 223 Augusta Ave., DeKalb, Ill.—Active, 1916.
- Duncklee, R.N., Miss Maude E., Boston City Hospital, Boston, Mass.—Active, 1920.
- Dundas, Miss Ethel B., Superintendent, Rochester General Hospital, Rochester, Pa.—Active, 1916.
- Dupay, Miss Susan V., U. S. Veterans Hospital No. 60, Oteen, N. C.—Associate, 1922.
- Eager, R.N., Miss Mary L., Directress of Nurses, Pawling Sanitarium, Rensselaer County, Wyantskill, N. Y.—Active, 1918.
- Eastman, Sophia B., Assistant to Director, Massachusetts Charitable Eye and Ear Infirmary, Boston, Mass.—Active, 1922.
- *Easton, R.N., Miss Blanche, Superintendent, Rockford Hospital, Rockford, Ill.—Active, 1923.
- Easton, Fred W., Trustee, Memorial Hospital, Pawtucket, R. I.—Active, 1920.
- Eastwood, Albert B., Chairman Executive Committee, Rochester Homeopathic Hospital, Rochester, N. Y.—Active, 1922.
- Eaton, R.N., Miss Florence A. A., Superintendent, Union Avenue Hospital, Framingham, Mass.—Active, 1921.
- Eberle, M.D., Adam, Kings County Hospital, Brooklyn, N. Y.—Active, 1921.
- Eckert, R.N., Miss A. Ellen, Superintendent, Bellefonte Hospital, Bellefonte, Pa.—Active, 1920.
- *Eckman, Miss Rena S., Michael Reese Hospital, Chicago, Ill.—Associate, 1918.
- Edmonda, Mother M., Superintendent, Misericordia Hospital, Philadelphia, Pa.—Active, 1917.
- Edwards, R.N., Miss Fannie R. (Address Unknown)—Active, 1921.
- Egeland, M.D., G. R., Trustee, Egeland Hospital, Sturgeon Bay, Wis.—Active, 1921.
- Eggert, Miss Carrie L., Superintendent, Woman's Hospital, Detroit, Mich.—Active, 1918.
- Eggleston, Miss Frances J., Chairman Executive Committee, Oswego Hospital, Oswego, N. Y.—Associate, 1923.
- Ehrenburg, Frederick G., Superintendent, Homeopathic Hospital, Albany, N. Y.—Active, 1921.
- Eichenlaub, M. H., Acting Superintendent, Western Pennsylvania Hospital, Pittsburgh, Pa.—Active, 1922.
- Eitel, M.D., George G., Eitel Hospital, Minneapolis, Minn.—Active, 1914.
- *Eitel, Mrs. Jeanette E., Superintendent, Eitel Hospital, Minneapolis, Minn.—Active, 1914.
- *Elder, Miss Mary L., Superintendent, Burlington Hospital, Burlington, Iowa—Active, 1920.
- Elizabeth, Sister, Superintendent, St. Joseph's Hospital, Philadelphia, Pa.—Associate, 1917.

- Elizabeth, Sister M., Assistant Superintendent, St. Joseph's Hospital, Deadwood, S. Dak.—Active, 1917.
- *Elkins, Miss Myrtle E., 107 E. Israel St., Eaton, Ohio—Active, 1920.
- Ellicott, Miss Nancy P., Superintendent, Rockefeller Institute Hospital, New York City—Active, 1909.
- Elliott, Miss Margaret, Assistant Superintendent, Church Home and Infirmary, Baltimore, Md.—Active, 1914.
- Ellis, George Adams, Trustee, Manhattan Maternity and Dispensary, New York City—Active, 1920.
- Emerentia, Sister M., Superioress, St. Francis Hospital, Colorado Springs, Colo.—Active, 1922.
- Emerson, M.D., Ernest B., Superintendent, Rutland State Sanatorium, Rutland, Mass.—Active, 1922.
- Emge, Miss Anna M., Superintendent, Western Minnesota Hospital, Graceville, Minn.—Active, 1917.
- Emma, Sister, Superintendent, St. Barnabas Hospital, Newark, N. J.—Active, 1916.
- Emmott, Miss Susan E., Superintendent, Concord Deaconess Hospital, Concord, Mass.—Active, 1914.
- Engelmann, R.N., Miss Lydia L., Superintendent, Samuel M. Heller Memorial Hospital, Napoleon, Ohio—Active, 1923.
- English, M.D., Samuel B., Medical Superintendent, New Jersey Sanatorium for Tuberculous Diseases, Glen Gardner, N. J.—Active, 1917.
- Epps, William, Royal Prince Alfred Hospital, Camperdown, Sydney, New South Wales—Active, 1905.
- *Erickson, Carl A., 104 S. Michigan Ave., Chicago, Ill.—Associate, 1921.
- Erlandson, R.N., Miss Elfrieda V., Superintendent, Coshocton City Hospital, Coshocton, Ohio—Active, 1923.
- Essig, Miss Anna K., Wrightsville, Pa.—Active, 1916.
- Etheldreda, Sister M., Assistant Superintendent, Mercy Hospital, Pittsburgh, Pa.—Active, 1916.
- Eugene, Sister M., St. Ann's Infant Asylum, Cleveland, Ohio—Active, 1921.
- Eure, Miss Lottie M., Watts Hospital, West Durham, N. C.—Associate, 1921.
- Everingham, Miss Arvilla E., Superintendent of Nurses, Faxon Hospital, Utica, N. Y.—Active, 1904.
- Ewin, R.N., Miss Hannah Jane, Superintendent, Free Hospital for Women, Brookline, Mass.—Active, 1911.
- Fairley, Miss Grace M., Superintendent, Training School for Nurses, Hamilton, Ont.—Active, 1917.
- *Falls, Miss Florence H., Social Service Department, Presbyterian Hospital, Chicago, Ill.—Associate, 1923.
- Farnam, Henry W., President, General Hospital Society of Connecticut, New Haven, Conn.—Active, 1921.
- *Farr, Edward L., President, Cooper Hospital, Camden, N. J.—Active, 1922.
- Farrell, M.D., John A., Medical Staff, General Hospital, Saranac Lake, N. Y.—Active, 1921.
- *Faunce, R.N., Miss Eleanore R., Superintendent, Lock Haven Hospital, Lock Haven, Pa.—Active, 1923.
- Fawcett, M.D., W. E., Superintendent and Medical Director, Grand View Sanatorium, Oil City, Pa.—Active, 1920.
- *Faxon, M.D., Nathaniel W., Director, Strong Memorial Hospital, University of Rochester, Rochester, N. Y.—Active, 1920.
- *Fay, John E., Superintendent, Ohio Valley Hospital, Steubenville, Ohio—Active, 1912.

- Fazio, Santo C., 375 Princes Bay Road, Princess Bay, Staten Island, N. Y.—Associate, 1920.
- Feiss, Paul L., President, Mount Sinai Hospital, Cleveland, Ohio—Active, 1920.
- Fell, Arthur D., Lankenau Hospital, Philadelphia, Pa.—Active, 1916.
- Fender, Miss Anna, Superintendent, St. Luke's Hospital, Montrose, Colo.—Active, 1922.
- Ferguson, Miss C. M., Superintendent, Alexandra Hospital, Montreal, Quebec—Active, 1920.
- *Fesler, Paul H., Superintendent, State University Hospital, Oklahoma City, Okla.—Active, 1918.
- *Fingerhood, Boris, Superintendent, United Israel—Zion Hospital, Brooklyn, N. Y.—Active, 1923.
- Finlay, Miss Elizabeth, Superintendent, Washington County Hospital, Washington, Iowa—Active, 1914.
- Finn, Mrs. George A., 36 Williams St., Norwich, Conn.—Associate, 1917.
- Fischel, M.D., K., Medical Director, Jewish Consumptive Relief Association Sanatorium, Duarte, Calif.—Active, 1923.
- Fisher, Miss Clara A., Superintendent, Jewish Hospital, Louisville, Ky.—Active, 1914.
- Fisher, Miss Dora B., Superintendent, Farmington Cottage for Mothers and Babies, Harmarville, Pa.—Active, 1920.
- Fiske, John W., Superintendent, St. Bartholomew's Clinic and Hospital, New York City—Active, 1922.
- *Flaws, Miss Elizabeth G., Superintendent, Wellesley Hospital, Toronto, Ont.—Active, 1920.
- Fleisher, Arthur A., President, Jewish Hospital of Philadelphia, Philadelphia, Pa.—Active, 1922.
- Fleming, Miss Blanche K., Superintendent, Grove City Hospital, Grove City, Pa.—Active, 1916.
- Fleming, M.D., Mark L., Assistant Medical Superintendent, Bellevue and Allied Hospitals, New York City—Active, 1915.
- *Fleming, Miss Maude M., Superintendent, Duval County Hospital, Jacksonville, Fla.—Active, 1923.
- Flick, Joseph D., Superintendent, Hospital for Ruptured and Crippled, New York City—Active, 1917.
- *Flowers, R.N., Miss Pearl B., 29 E. 32nd St., Kansas City, Mo.—Active, 1923.
- *Foley, L. G., Inspector of Minnesota Hospitals, St. Paul, Minn.—Associate, 1914.
- *Foley, Matthew O., Managing Editor, Hospital Management, Chicago, Ill.—Active, 1922.
- Folks, Homer, Secretary, State Charities Aid Association, New York City—Associate, 1910.
- *Fonkalsrud, M.D., A. O., Director, Trinity Hospital, Minot, N. D.—Active, 1913.
- Forbes, Mrs. Waldo E., Member Board of Managers, Boston Dispensary, Boston, Mass.—Active, 1921.
- *Ford, Mrs. A. Louise, Superintendent, Children's Hospital, Pittsburgh, Pa.—Active, 1911.
- *Ford, Clarence E., Superintendent, Division of Medical Charities, New York State Board of Charities, Albany, N. Y.—Associate, 1917.
- Fordyce, George L., Trustee, Youngstown Hospital Association, Youngstown, Ohio—Active, 1920.
- Forrest, Miss Mary H., East Washington St., Chambersburg, Pa.—Active, 1922.

- Foss, M.D., H. L., Surgeon-in-Chief, George F. Geisinger Memorial Hospital, Danville, Pa.—Active, 1917.
- Fox, M.D., L. Webster, Medical Director, Medico-Chirurgical Hospital, Philadelphia, Pa.—Active, 1916.
- Fox, R.N., Miss Rena P., Superintendent, Babies Hospital of Philadelphia, Philadelphia, Pa.—Active, 1913.
- Francis, James P., Trustee, St. Luke's Hospital, New Bedford, Mass.—Active, 1920.
- Francis, Sister Mary, Superintendent, Pittsburgh Hospital, Pittsburgh, Pa.—Active, 1922.
- *Francis, R.N., Miss Susan C., Superintendent, Children's Hospital of Philadelphia, Philadelphia, Pa.—Active, 1922.
- *Frank, Louis J., Superintendent, Beth Israel Hospital, New York City—Active, 1908.
- Frankfort, Maurice, Trustee, Mount Sinai Hospital, New York City—Active, 1917.
- *Franklin, J. B., Superintendent, Baylor Hospital, Dallas, Texas—Active, 1912.
- Fraser, Miss Jean Cameron, Superintendent, Vincent Memorial Hospital, Boston, Mass.—Active, 1913.
- Fraser, Mrs. Nettie, Superintendent, Moore-Overton Hospital, Binghamton, N. Y.—Associate, 1913.
- Freed, Mrs. Margaret A., Superintendent, East Seventy-Ninth Street Hospital and Maternity Annex, Cleveland, Ohio—Active, 1923.
- French, Miss Callie (Address Unknown)—Active, 1921.
- *Fritschel, Rev. H. L., President and Superintendent, Milwaukee Hospital, Milwaukee, Wis.—Active, 1912.
- Froberger, R. W., Superintendent, Geisinger Memorial Hospital, Danville, Pa.—Active, 1921.
- Frost, M.D., Harold M., Assistant Superintendent, Massachusetts Charitable Eye and Ear Infirmary, Boston, Mass.—Active, 1919.
- *Frost, M.D., C. D., Assistant Director, Lakeside Hospital, Cleveland, Ohio—Active, 1922.
- Frye, Mrs. Charlotte A., 1514 Larchmound Ave., Lakewood, Ohio—Active, 1921.
- Fulgentia, Sister M., St. Francis Hospital, Trenton, N. J.—Active, 1916.
- *Fuller, Miss Blanche M., Superintendent, Nebraska Methodist Episcopal Hospital, Omaha, Neb.—Active, 1917.
- *Fuller, M.D., David H., General Superintendent, Municipal Hospitals and Dispensaries, Fall River, Mass.—Active, 1915.
- Fuller, R. N., Mrs. G. W., Superintendent, St. Luke's Hospital, Fargo, N. Dak.—Active, 1922.
- Fuqua, C. B., Trustee and Superintendent, St. Luke's Hospital, Bluefield, W. Va.—Active, 1921.
- *Fye, Miss Mae H., Superintendent, Elkhart General Hospital, Elkhart, Ind.—Active, 1918.
- Gaffney, Miss Mary E., Superintendent, Woman's Hospital, Philadelphia, Pa.—Active, 1920.
- Gage, Miss Harriet, Institute for Juvenile Research, 721 S. Wood St., Chicago, Ill.—Associate, 1918.
- *Gaggs, Miss Alice Muriel, Superintendent, J. N. Norton Memorial Infirmary, Louisville, Ky.—Active, 1913.
- *Galbraith, A. Campbell, Superintendent, Toronto Western Hospital, Toronto, Ont.—Active, 1923.
- Gallagher, Mrs. J. V., 9 State St., Milford, Mass.—Active, 1922.

AMERICAN HOSPITAL ASSOCIATION

- Gallery, Miss Elizabeth A., Kennett Square, Chester County, Pa.—Active, 1916.
- Gants, R.N., Miss Florence, Superintendent, Texarkana Sanitarium and Hospital, Texarkana, Texas—Active, 1920.
- Gardiner, John C., Superintendent, Springfield Hospital, Springfield, Mass.—Active, 1922.
- Gardner, R.N., Miss Eunice O., Assistant Superintendent, Christian H. Buhl Hospital, Sharon, Pa.—Active, 1923.
- *Garratt, R.N., Miss Helen M., Superintendent, Sheltering Arms Hospital, Hanford, W. Va.—Active, 1922.
- Garrett, Miss Anna C., Superintendent, Frankfort Hospital, Philadelphia, Pa.—Active, 1909.
- *Garrison, Miss Charlotte Jane, Superintendent, Sunny Crest Sanatorium, Dubuque, Iowa—Active, 1916.
- *Gartshore, W. M., Trustee, Victoria Hospital, London, Ont.—Active, 1912.
- *Gary, M.D., I. Clark, Superintendent, People's Hospital, Chicago, Ill.—Active, 1912.
- Gautchi, Miss Marie, Delaware Springs Sanatorium, Delaware, Ohio—Active, 1921.
- Geiger, Miss E. C., Trustee, St. Luke's Homeopathic Hospital, Philadelphia, Pa.—Active, 1923.
- Genevieve, Sister M., Mother House, Sisters of Charity of St. Augustine, Lakewood, Ohio—Active, 1916.
- Gentry, H. F., Trustee, Boone County Public Hospital, Columbia, Mo.—Active, 1923.
- George, Miss Elva A., Department of Welfare, New York City—Active, 1922.
- Georgina, Sister M., Superintendent, St. Agnes' Hospital, Philadelphia, Pa.—Active, 1916.
- *Geraghty, Miss E. M., Director of the Department of Dietetics, Lakeside Hospital, Cleveland, Ohio—Associate, 1917.
- *Geraldine, Sister M., Rosemary Home, Euclid Village, Cleveland, Ohio—Active, 1916.
- Geraldine, Sister M., Superior, St. Ann's Maternity Hospital, Cleveland, Ohio—Active, 1922.
- Gerhold, Sister Magdeline, Superintendent, Deaconess Hospital, St. Louis, Mo.—Active, 1922.
- Gest, William P., Trustee, Presbyterian Hospital, Philadelphia, Pa.—Active, 1923.
- Ghent, Mrs. M. M., 394 Bates Ave., St. Paul, Minn.—Active, 1917.
- Gibbons, R.N., Miss Mary T., 25 W. Mt. Pleasant Ave., Mt. Airy, Philadelphia, Pa.—Active, 1922.
- Gibson, Miss Anna L., Superintendent, Huntington Memorial Hospital, Boston, Mass.—Active, 1922.
- Gilbert, Henry J., Vice-President, Saginaw Welfare League, Saginaw, Mich.—Active, 1920.
- Gilbert, Sister, Superintendent of Nurses, St. John's Hospital, Fargo, N. Dak.—Associate, 1917.
- *Gilberta, Sister M., Superintendent of Nurses, St. Elizabeth's Hospital, Youngstown, Ohio—Active, 1923.
- *Gilbride, R.N., Mrs. C., Superintendent, East One Hundred Fifth Street Hospital, Cleveland, Ohio—Active, 1923.
- *Gilday, M. D., A. Lorne C., Superintendent, Western Hospital of Montreal, Montreal, Quebec—Active, 1923.
- Giles, Sister M., St. Joseph's Hospital, Kansas City, Mo.—Active, 1917.

AMERICAN HOSPITAL ASSOCIATION

- Gill, Charles A., Superintendent, Germantown Hospital, Philadelphia, Pa.—Active, 1904.
- Gillette, M.D., E. B., Robinwood Hospital, Toledo, Ohio—Active, 1923.
- *Gilmore, E. S., Superintendent, Wesley Memorial Hospital, Chicago, Ill.—Active Life, 1916.
- Glaser, Julius, Trustee, The Jewish Hospital, St. Louis, Mo.—Active, 1921.
- *Glasgow, M. Whitfield, Superintendent, Employees' Hospital, Tennessee Coal, Iron and R. R. Co., Fairfield, Ala.—Active, 1921.
- Gleason, M.D., John H., Trustee, Beacon Hill Hospital, Manchester, N. H.—Active, 1911.
- Glenn, John M., General Director, Russell Sage Foundation, New York City—Active, 1921.
- Goddard, M.D., S. W., Goddard Hospital, Brockton, Mass.—Active, 1913.
- Goepfinger, Miss L. L., Superintendent of Nurses, Deaconess Hospital, Indianapolis, Ind.—Active, 1921.
- Goff, R.N., Miss Hazel A., Superintendent of Nurses, Blodgett Memorial Hospital, Grand Rapids, Mich.—Active, 1923.
- Goldbeck, Miss Adelaide L., Supervisor of Nurses, Flower Hospital, New York City—Associate, 1922.
- *Golden, Miss Rose K., Superintendent of Nurses, Mercy Hospital, Janesville, Wis.—Active, 1920.
- Golden, Thomas J., Secretary to Medical Director of Jersey City, Jersey City Hospital, Jersey City, N. J.—Active, 1920.
- Golden, M.D., F.A.C.S., William W., Superintendent, Davis Memorial Hospital, Elkins, W. Va.—Active, 1922.
- Golder, Rev. C. R., President, Bethesda Hospital, Cincinnati, Ohio—Active, 1917.
- Goldman, Alvin D., Trustee, Jewish Hospital, St. Louis, Mo.—Active, 1921.
- Goldwater, M.D., S. S., Director, Mount Sinai Hospital, New York City—Active, 1904.
- Golightly, Mrs. B. E., Birmingham Infirmary, Birmingham, Ala.—Active, 1918.
- Gonzaga, Sister Rose, Superintendent, San Antonio Hospital, Kenton, Ohio—Associate, 1923.
- Goodale, M.D., Walter S., Superintendent, Buffalo City Hospital, Buffalo, N. Y.—Active, 1922.
- Goodnow, Miss Minnie, Superintendent of Nurses, The Children's Hospital, Washington, D. C.—Active, 1905.
- Goodrich, Miss Annie W., 509 W. 121st St., New York City—Active, 1913.
- Goodrich, M.D., J. K., Riverview Hospital, Wisconsin Rapids, Wis.—Active, 1921.
- Goodwin, M.D., C. W., New Dorp Beach, Staten Island, N. Y.—Active, 1918.
- Gordon, R.N., Miss Agnes E., Superintendent of Nurses, Receiving Hospital, Detroit, Mich.—Active, 1921.
- *Gosselin, M.D., J., Superintendent, Civic Hospital, Quebec, Quebec—Active, 1920.
- Gothson, Miss Dorothea, Superintendent, Swedish Hospital, Brooklyn, N. Y.—Active, 1917.
- Grant, B. F., Superintendent, Dr. W. H. Groves Latter-Day Saints Hospital, Salt Lake City, Utah—Active, 1921.
- Grant, Mrs. Carrie E., Clinic Executive and Social Work, Boston Dispensary, Boston, Mass.—Associate, 1920.
- Grant, Miss Janet Gordon, Superintendent, Moses Taylor Hospital, Scranton, Pa.—Active, 1908.
- Gratiot, M.D., H. B., President, Medical Staff, Finley Hospital, Dubuque, Iowa—Active, 1912.

- *Graves, Miss Lulu G., Supervising Dietitian, Mt. Sinai Hospital, New York City—Associate, 1918.
- Green, M.D., H. A., Medical Director and Superintendent, Boulder-Colorado Sanitarium, Boulder, Colo.—Active, 1922.
- *Greenberg, M.D., Boris E., Superintendent, Beth Israel Hospital, Boston, Mass.—Active, 1920.
- Grenberg, Emil, Assistant Superintendent, Beth Israel Hospital, New York City—Active 1913.
- Greene, Frederick D., General Secretary, United Hospital Fund of New York, New York City—Associate, 1913.
- Greene, Miss Letitia A., 1208 Carlisle Avenue, Spokane, Wash.—Active, 1917.
- Greene, Norwood, Superintendent, Columbia Hospital, Columbia, S. C.—Active, 1922.
- Greener, Miss Elizabeth A., Superintendent of Nurses, Mount Sinai Training School, New York City—Associate, 1908.
- Greenwood, Miss Emily, The Pullman Co., Haskell and Barker Plant, Michigan City, Ind.—Active, 1922.
- Greve, Robert G., Business Officer, University Hospital, Ann Arbor, Mich.—Associate, 1920.
- Griffin, Miss Anna, Danbury Hospital, Danbury, Conn.—Active, 1922.
- *Griffin, Rev. Maurice F., Trustee, St. Elizabeth's Hospital, Youngstown, Ohio—Active, 1916.
- Griffin, William V., Trustee, New York Post Graduate Medical School and Hospital, New York City—Active, 1920.
- Gritman, Mrs. B. E., Private Hospital, Moscow, Idaho—Active, 1921.
- Grolton, Walter, Superintendent, Missouri Pacific Railroad Hospital, St. Louis, Mo.—Active, 1923.
- *Gronewald, R.N., Miss Dena, Superintendent, McPherson County Hospital, McPherson, Kan.—Active, 1922.
- *Groppe, R.N., Miss Edna B., Assistant Superintendent, St. Luke's Hospital, Marquette, Mich.—Active, 1923.
- Gross, M.D., W. O., Lutheran Hospital, Fort Wayne, Ind.—Active, 1921.
- Grube, M.D., John E., Superintendent, Punxsutawney Hospital, Punxsutawney, Pa.—Active, 1922.
- *Gruber, M.D., T. K., Superintendent, Receiving Hospital, Detroit, Mich.—Active, 1916.
- *Guest, M.D., A. W., Superintendent, State Hospital for the Insane, Jamestown, N. D.—Active, 1921.
- Gutwald, Miss Kathryn R., Superintendent, St. Luke's Hospital, Marquette, Mich.—Active, 1916.
- Guyer, A. G., President, Cape Cod Hospital, Hyannis, Mass.—Active, 1920.
- *Haag, Rev. C. C., Superintendent, Evangelical Deaconess Hospital, Detroit, Mich.—Active, 1923.
- Haase, M.D., Marcus, Chairman Medical Board, Memphis General Hospital, Memphis, Tenn.—Active, 1923.
- Haggard, M.D., W. D., Vanderbilt and St. Thomas Hospital, Nashville, Tenn.—Active, 1914.
- Hague, Hon. Frank, Trustee, Jersey City Hospital, Jersey City, N. J.—Associate, 1917.
- *Hahn, A. G., Business Manager, Protestant Deaconess Hospital, Evansville, Ind.—Active, 1923.
- Hale, Mrs. J. H., Superintendent, Millie E. Hale Hospital, Nashville, Tenn.—Active, 1922.
- Hall, Miss Carrie M., Superintendent of Nurses, Peter Bent Brigham Hospital, Boston, Mass.—Associate, 1910.

AMERICAN HOSPITAL ASSOCIATION

- *Hall, R.N., Miss Evelyn H., Superintendent, Seattle General Hospital, Seattle, Wash.—Active, 1915.
- Hall, M.D., Herbert J., President, Devereux Mansion, Inc., Marblehead, Mass.—Active, 1921.
- Hallberg, R.N., Miss Caroline B., Superintendent, Shriners' Hospital for Crippled Children, Minneapolis, Minn.—Active, 1922.
- *Halpern, George E., Superintendent, Lebanon Hospital, New York City—Active, 1920.
- Halvorsan, Miss Josephine, Superintendent, Port Huron Hospital, Port Huron, Mich.—Active, 1917.
- Hamalainen, Miss Martha J., Henry Heywood Memorial Hospital, Gardiner, Mass.—Associate, 1922.
- Hamer, Miss Laura M., Poland Apartments, Atlantic City, N. J.—Active, 1917.
- Hamilton, M.D., Stewart, Superintendent, Harper Hospital, Detroit, Mich.—Active, 1916.
- Hammerschlag, Miss Beulah D., Superintendent, Jewish Maternity Hospital, Philadelphia, Pa.—Active, 1923.
- Hanna, R.N., Miss Zoe L., Superintendent, King's Daughters' General Hospital, Beckley, W. Va.—Active, 1923.
- *Hanner, G. M., Superintendent, Beth-El Hospital, Colorado Springs, Colo.—Active, 1922.
- *Hansen, R.N., Miss Elizabeth I., Superintendent, Deaconess Hospital, Buffalo, N. Y.—Active, 1916.
- *Hanson, Rev. F. O., Superintendent, Iowa Lutheran Hospital, Des Moines, Iowa—Active, 1921.
- *Hardgrove, A. E., General Superintendent, Akron City Hospital, Akron, Ohio—Active, 1922.
- Harley, Miss Lillah B., c/o Froman, 57 W. 57th St., New York City—Active, 1920.
- Harmey, Miss Elizabeth P., Superintendent, Wyckoff Heights Hospital, Brooklyn, N. Y.—Active, 1922.
- Harris, R.N., Miss Hanna B., Superintendent, Salem County Memorial Hospital, Salem, N. J.—Active, 1922.
- Harrod, Miss Jessie, 1512 Michigan Ave., Saginaw, Mich.—Active, 1921.
- Hart, M.D., Arthur O., Vice President, St. John's Hospital, St. Johns, Mich.—Associate, 1921.
- *Hartry, Miss Harriet, Superintendent, St. Barnabas' Hospital, Minneapolis, Minn.—Active, 1907.
- *Harwick, H. J., General Manager, Mayo Clinic, Rochester, Minn.—Active, 1916.
- Haskell, Edward H., President, New England Baptist Hospital, Boston, Mass.—Active, 1919.
- Haskell, Miss Grace P., Superintendent, Wentworth Hospital, Dover, N. H.—Active, 1910.
- *Haugen, J. E., Manager, St. Paul Hospital, St. Paul, Minn.—Active, 1917.
- Hausman, M.D., Jr., W. A., Sacred Heart Hospital, Allentown, Pa.—Active, 1922.
- Hawes, Wm. B., Trustee, Union Hospital, Fall River, Mass.—Active, 1921.
- Haworth, E. P., Superintendent, Willows Maternity Sanitarium, Kansas City, Mo.—Active, 1911.
- Haws, Miss Mary E., 184 W. Court St., Doylestown, Pa.—Active, 1918.
- Hayden, Mrs. Sarah, Superintendent, Augusta General Hospital, Augusta, Maine—Active, 1912.
- Hayhow, Edgar C., Assistant Superintendent, Lenox Hill Hospital, New York City—Associate, 1917.

AMERICAN HOSPITAL ASSOCIATION

- *Haywood, M.D., A. K., Superintendent, Montreal General Hospital, Montreal, Quebec—Active, 1917.
- Hazen, M.D., Roland, Superintendent, Paris Hospital, Paris, Ill.—Active, 1921.
- Heard, T. H., 192 Waterloo St., London, Ont.—Active, 1905.
- *Hedden, M.D., Henry, Superintendent, Methodist Hospital, Memphis, Tenn.—Active, 1918.
- Heffner, Miss Lizabeth, Home Hospital, Lafayette Ind.—Active 1921.
- Heimer, M.D., W. H., Superintendent, Park Place Hospital, Pawtucket, R. I.—Active, 1918.
- Heinrich, Miss Mary E., Superintendent, Tuomey Hospital, Sumter, S. C.—Active, 1920.
- *Henderson, Miss Bena M., Superintendent, Milwaukee Children's Hospital, Milwaukee, Wis.—Active, 1915.
- Henderson, Fred J., 14365 Superior Ave., Cleveland, Ohio—Active, 1923.
- *Henke, M.D., W. A., Superintendent of Medical Staff, Grandview Hospital, La Crosse, Wis.—Active, 1921.
- Henninger, R.N., Miss Alice G., Superintendent, Seaside Hospital, Long Beach, Calif.—Active, 1916.
- *Henry, Mrs. E. C., Superintendent, Lord Lister Hospital, Omaha, Nebr.—Active, 1923.
- Henry, Miss Mary E., Superintendent, Pottstown Hospital, Pottstown, Pa.—Active, 1922.
- Henson, Edward F., President, Children's Homeopathic Hospital, Philadelphia, Pa.—Active, 1923.
- Herman, R.N., Miss Katherine B., (Address Unknown)—Active, 1919.
- *Hersey M.D., Harold W., Administrative Board of Columbia University, New York City—Active, 1913.
- Hewson, R. R., Superintendent, Pasadena Hospital, Pasadena, Calif.—Active, 1923.
- Heyer, M.D., G. E., Superintendent and Surgeon, State Hospital of Nanticoke, Nanticoke, Pa.—Active, 1922.
- Hibbard, Miss Eugenia, Chief of Bureau of Nurses, Republic of Cuba, Havana, Cuba—Associate, 1908.
- Hicks, Miss E. T., Superintendent, St. Luke's Memorial Hospital, Ponce, Puerto Rico—Active, 1923.
- Higbee, Miss L. C., Superintendent, Pottstown Homeopathic Hospital, Pottstown, Pa.—Active, 1922.
- *Higginbotham, Herbert, Superintendent, West Philadelphia General Homeopathic Hospital, Philadelphia, Pa.—Active, 1922.
- Higgins, Miss Alice E., 53 E. 96th St., New York City—Associate, 1922.
- Highsmith, M.D., J. F., Superintendent, Highsmith Hospital, Fayetteville, N. C.—Active, 1908.
- Hildreth, C. B., Summit Avenue (near Clifton Blvd.), Lakewood, Ohio—Active, 1912.
- Hilf, Miss Elizabeth M., Superintendent, Sanitarium of Paris, Paris, Texas—Active, 1922.
- Hilker, F. C., Superintendent, Hahnemann Hospital, Scranton, Pa.—Active, 1916.
- Hill, Miss Caroline, Cambridge, N. Y.—Active, 1913.
- Hill, M.D., John J., Assistant General Medical Superintendent, Bellevue Hospital, New York City—Active, 1922.
- Hill, Miss Minnie V., Assistant Superintendent, Tacoma General Hospital, Tacoma, Wash.—Active, 1922.
- Hill, Miss M. Y., Superintendent, West Side Hospital, Scranton, Pa.—Active, 1913.

AMERICAN HOSPITAL ASSOCIATION

- Hill, Robert W., Capitol Building, Albany, N. Y.—Honorary, 1901.
- Hill, Warren C., 93 Federal St., Boston, Mass.—Associate, 1916.
- Hilliard, Miss Amy M., Superintendent, Samaritan Hospital, Troy, N. Y.—Active, 1921.
- Hillquist, R.N., Miss Esther, Lake View Hospital Association, Chicago, Ill.—Associate, 1922.
- Hillquist, R.N., Miss S., Superintendent of Nurses, Lake View Hospital Association, Chicago, Ill.—Associate, 1922.
- *Hills, Mrs. James M., President, Prospect Heights Hospital and Brooklyn Maternity, Brooklyn, N. Y.—Active, 1923.
- Hinds, R.N., Miss Ethel B., Superintendent of Nurses, Ohio Valley Hospital, Steubenville, Ohio—Active, 1923.
- Hindson, Miss Isabel, Superintendent, Taylor Hospital Association, Taylor, Pa.—Active, 1922.
- *Hipke, Mrs. G. A., Milwaukee Maternity and General Hospital, Milwaukee, Wis.—Active, 1921.
- *Hirschberg, M.D., S. B., Medical Director, Beth Moses Hospital, Brooklyn N. Y.—Active, 1923.
- Hirsh, Harry B., Vice-President, Jewish Hospital, Philadelphia, Pa.—Active, 1923.
- Hixon, F. P., President, La Crosse Hospital Association, La Crosse, Wis.—Active, 1922.
- *Hoff, George S., Secretary Board of Trustees, Lake View Hospital, Danville, Ill.—Active, 1922.
- Hoffecker, Miss Nellie C., Assistant Superintendent, Hahnemann Hospital, Scranton, Pa.—Active, 1922.
- *Hoffman, Miss Margaret, Lakeside Hospital, Cleveland, Ohio—Associate, 1922.
- Hoffmann, Bernhard, Trustee, Santa Barbara Cottage Hospital, Santa Barbara, Calif.—Active, 1923.
- Hofseth, R.N., Miss Astrid, Monnette Hotel, Evanston, Ill.—Active, 1914.
- Holden, M.D., G. W., Medical Director, Agnes Memorial Sanatorium, Denver, Colo.—Active, 1904.
- Hollister, M.D., F. M., Superintendent, Brockton Hospital, Brockton, Mass.—Active, 1920.
- Hollohan, R.N., Lillina A., Superintendent, Morton F. Plant Endowed Hospital, Clearwater, Fla.—Active, 1921.
- *Holmes, George F., Superintendent, Memorial Hospital for Treatment of Cancer and Allied Diseases, New York City—Active, 1913.
- Holmes, Rev. James E., Superintendent, Methodist Episcopal Hospital, Brooklyn, N. Y.—Active, 1917.
- Holmes, M.D., May S., Superintendent, Belmont Hospital, Worcester, Mass.—Active, 1908.
- *Holmes, Miss Susan, Superintendent, Abbott Hospital, Minneapolis, Minn.—Active, 1908.
- *Holtman, R.N., Anna M., Superintendent, Fort Wayne Lutheran Hospital, Fort Wayne, Ind.—Active, 1922.
- Holzer, M.D., Charles E., Holzer Hospital, Gallipolis, Ohio—Active, 1921.
- Hommel, Mrs. C. D., Superintendent, Bushwick Hospital, Brooklyn, N. Y.—Active, 1922.
- *Hopper, Mrs. B. M., Superintendent of Nurses, Matty Hersee Hospital, Meridan, Miss.—Active, 1920.
- Horn, Brother Frumentius, Superintendent, Alexian Brothers Hospital, St. Louis, Mo.—Active, 1922.
- Horn, Miss Jessie A., Superintendent, City Hospital, Bellaire, Ohio—Active, 1916.

- Hornsby, M.D., John A. Hornsby's Hospital Magazine, Chicago, Ill.—Active Life, 1916.
- Hortense, Sister, Superintendent, St. Elizabeth's Hospital, Youngstown, Ohio—Active, 1917.
- Houck, Paul W., President, State Hospital, Coaldale, Pa.—Active, 1923.
- *House, James N., Superintendent, Chester County Hospital, West Chester, Pa.—Active, 1923.
- *Howell, Miss Maude Lucile, Gulfport, Miss.—Active, 1920.
- Howk, M.D., Horace J., Superintendent, Metropolitan Life Insurance Sanatorium, Mt. McGregor, N. Y.—Active, 1913.
- Howland, M.D., Joseph B., Superintendent, Peter Bent Brigham Hospital, Boston, Mass.—Active, 1906.
- Hoyt, Edward, 220 Devonshire St., Boston, Mass.—Associate, 1923.
- Hubbard, Miss Eleanor, 135 E. 52nd St., New York City—Associate, 1917.
- Hubbard, R.N., Miss Jessie J., Superintendent, Brown Memorial Hospital, Conneaut, Ohio—Active, 1922.
- Hubbard, Nelson C., Trustee, Ohio Valley General Hospital, Wheeling, W. Va.—Active, 1917.
- Hughes, M.D., Francois L., Room 721 Weightman Bldg., 1524 Chestnut St., Philadelphia, Pa.—Associate, 1914.
- Hunt, Miss Nellie E., Superintendent, City Hospital, Ellwood City, Pa.—Active, 1917.
- *Hunter, Miss Jean Allison, Superintendent, Grace Hospital, New Haven, Conn.—Active, 1915.
- Hunter, R. W., 613 Vancouver Block, Vancouver, B. C.—Associate, 1922.
- Hurd, M.D., Henry M., 1023 St. Paul St., Baltimore, Md.—Active, 1904.
- *Hurley, Miss Katherine E., Superintendent, Nassau Hospital, Mincola, L. I., N. Y.—Active, 1917.
- Hussey, R.N., Miss Mildred M., Superintendent, Monnette Memorial Hospital, Bucyrus, Ohio—Associate, 1923.
- Hutcheon, Miss Mary E., Winona General Hospital, Winona, Minn.—Associate, 1923.
- Hutchins, F. L., Superintendent, W. W. Backus Hospital, Norwich, Conn.—Active, 1913.
- Hutchinson, Miss Halce, Assistant Superintendent, Woman's Hospital in the State of New York, New York City—Active, 1921.
- Hyde, R.N., Miss S. Augusta, Wise Memorial Hospital, Omaha, Nebr.—Active, 1921.
- *Hyde, Rev. Thomas A., Superintendent, Christ Hospital, Jersey City, N. J.—Active, 1923.
- Hyman, M.D., Albert S., Superintendent, Beth David Hospital, New York City—Active, 1920.
- Ide, M.D., Charles E., 141 Wisconsin Street, Milwaukee, Wis.—Active, 1921.
- Ingwersen, Miss Ella C., Superintendent, La Crosse Hospital, La Crosse, Wis.—Active, 1907.
- Irene, Sister M., Superior, St. Vincent Charity Hospital, Cleveland, Ohio—Active, 1917.
- Irenaeus, Sister M., Superior, Roselia Maternity Hospital and Foundlings Asylum, Pittsburgh, Pa.—Active, 1922.
- Irish, Rev. J. W., Executive Secretary, Wisconsin Methodist Hospital and Home Association, Madison, Wis.—Active, 1921.
- Irwin, Miss Edith B., Superintendent, Columbia Hospital, Wilkesburg, Pa.—Active, 1921.
- Irwin, H. D., Trustee, Hahnemann Hospital, Philadelphia, Pa.—Active, 1923.
- Irwin, Mrs. Mary B., 334 Boulevard, Passaic, N. J.—Active, 1914.
- Ivory, Miss Margaret A., St. Joseph's Hospital, Paterson, N. J.—Active, 1917.

AMERICAN HOSPITAL ASSOCIATION

- Jackson, Miss Mary C., Superintendent, W. C. Graham Hospital, Keokuk, Iowa—Active, 1911.
- Jacobs, Miss Maude C., Superintendent, Riverside Hospital, Wilkes-Barre, Pa.—Active, 1923.
- Jacobs, M. D., William Frank, Medical Superintendent, Cumberland Hospital, Brooklyn, N. Y.—Active, 1912.
- *Jacobson, R.N., Miss Millie A., Superintendent, Luther Hospital, Eau Claire, Wis.—Active, 1923.
- Jallade, Louis E., 129 Lexington Ave., New York City—Associate, 1918.
- *James, Miss Joanna L., Superintendent, Corning Hospital, Corning, N. Y.—Active, 1921.
- James, Sister St., Superintendent, A. Barton Hepburn Hospital, Ogdensburg, N. Y.—Active, 1909.
- *Jameson, C. M., Chairman, St. Anthony's Hospital, Hays, Kan.—Active, 1923.
- Jamieson, Miss Mary A., Superintendent, Grant Hospital, Columbus, Ohio—Active, 1911.
- Jaquith, Miss Lucia L., Superintendent, Memorial Hospital, Worcester, Mass.—Active, 1905.
- Jarecki, M.D., Edwin A., Chief Resident Physician, Jewish Hospital, Logan, Philadelphia, Pa.—Associate, 1916.
- Jarrell, John, Trustee, Lafayette Home Hospital, Lafayette, Ind.—Active, 1923.
- Jarrett, Miss Mary C., Associate Director, Smith College Training School for Social Work Northampton, Mass.—Associate, 1918.
- Jeffrey, Miss Annie T., 415 S. Fifteenth St., Philadelphia, Pa.—Active, 1916.
- Jenkins, Miss Helen Hartley, Director, New York Nursery and Child's Hospital, New York City—Active, 1923.
- Jenkins, Miss Ruth Evelyn, Tennessee Coal and Iron Hospital, Fairfield, Ala.—Associate, 1922.
- Jens, Rev. F. P., Superintendent, Evangelical Deaconess Hospital, St. Louis, Mo.—Active, 1910.
- Johanson, R.N., Miss S. A., Superintendent, Twin Falls County Hospital, Twin Falls, Idaho—Active, 1923.
- *Johnson, Clarence T., Superintendent, Washington Boulevard Hospital, Chicago, Ill.—Active, 1920.
- Johnson, R.N., Miss Gertrude I., Superintendent, Chelsea Hospital, Chelsea, Mass.—Active, 1920.
- *Johnson, H. A., Associate Business Manager, Mayo Clinic, Rochester, Minn.—Active, 1923.
- Johnson, M.D., Howard H., Superintendent, St. Luke's Hospital, San Francisco, Calif.—Active, 1923.
- Johnson, L. A., Trinity Lutheran Hospital, Kansas City, Mo.—Active, 1923.
- Johnson, R.N., Miss Lake, Superintendent, St. Mary's Hospital, Athens, Ga.—Active, 1921.
- Johnston, R.N., Miss Margaret W., Superintendent, Colonial Hospital, Geneva, Ill.—Active, 1921.
- *Jolly, Robert, Superintendent, Baptist Hospital, Houston, Texas—Active, 1923.
- Jones, M.D., Arthur T., 131 Waterman St., Providence, R. I.—Associate, 1914.
- Jones, Miss Harriet, Superintendent, Bloomington Hospital, Bloomington, Ind.—Active, 1921.
- *Jones, M.D., Henry, Superintendent, State Infirmary, Howard, R. I.—Active, 1920.

AMERICAN HOSPITAL ASSOCIATION

- *Jones, Miss Jeannette L., Superintendent, South Side Hospital, Pittsburgh, Pa.—Active, 1916.
- Jones, Miss K. Pearl, Superintendent, Whitinsville Hospital, Whitinsville, Mass.—Active, 1920.
- Jones, M.D., Kenneth B., Director, University Hospital, Baltimore, Md.—Active, 1922.
- Jones, M.D., Mortimer D., Medical Superintendent, Kings County Hospital, Brooklyn, N. Y.—1922.
- Jones, M.D., W. A., Director, South Side Sanitarium, Minneapolis, Minn.—Active, 1908.
- Jordan, Wm. L., Manager, University Hospital, Baltimore, Md.—Active, 1918.
- Joseph, Miss Hannah L., Social Service Worker, New York Hospital, New York City—Associate, 1918.
- Joy, Mrs. Henry B., Trustee, Woman's Hospital, Detroit, Mich.—Active, 1921.
- Judge, James P., Counsel and Advisor, St. Peter's Hospital and St. Anthony's Hospital, Brooklyn, N. Y.—Associate, 1918.
- *Justis, R.N., Miss L. J., Superintendent, Brokaw Hospital, Normal, Ill.—Associate, 1916.
- Kahler, Miss Venetta V., Superintendent, Medico-Chirurgical and Polyclinic Hospital, Philadelphia, Pa.—Active, 1922.
- Kane, M.D., Thomas L., Superintendent, Kane Summit Hospital, Kane, Pa.—Active, 1922.
- Kavanaugh, R.N., Miss Elizabeth A., Superintendent, Hudson County Contagious Disease Hospital, Secaucus, N. J.—Active, 1918.
- Kearney, R.N., Miss Martha, 1803 Valentine Ave., Cleveland, Ohio—Active, 1921.
- Keefer, Miss Zada N., Superintendent, Hospital Extension Service, Department of Public Health, Toronto, Ont.—Associate, 1920.
- Keemer, Miss Estella M., Hempstead Hospital, Portsmouth, Ohio—Associate, 1918.
- Keiper, M.D., George F., 14 North Sixth Street, Lafayette, Ind.—Active, 1921.
- Keith, Miss Mary L., Superintendent, Rochester General Hospital, Rochester, N. Y.—Active, 1905.
- *Keller, R.N., Miss Lydia H., Superintendent, Methodist Hospital, Scottsbluff, Nebr.—Active, 1907.
- *Keller, M.D., Paul, Superintendent, Newark Beth Israel Hospital, Newark, N. J.—Active, 1922.
- Kelly, Miss E. A., Superintendent of Nurses, Highsmith Hospital, Fayetteville, N. C.—Associate, 1916.
- Kelly, Miss Marguerite, Superintendent of Nurses, Central Neurological Hospital, Welfare Island, N. Y.—Associate, 1922.
- Kemmer, A. E., Trustee, Lafayette Home Hospital, Lafayette, Ind.—Active, 1923.
- Kendal, Henry H., Newton Hospital, Newton Lower Falls, Mass.—Associate, 1911.
- Kendall, Mrs. Sarah D., Athol, Mass.—Active, 1916.
- Kennedy, Miss Margaret E., Assistant to Superintendent, Sanitarium of Paris, Paris, Texas—Active, 1922.
- Kenney, R.N., Miss Helen B., Superintendent, National Stomach Hospital, Philadelphia, Pa.—Active, 1921.
- Kenney, Wallace W., Superintendent, Victoria General Hospital, Halifax, N. S.—Active, 1905.
- Kern, Miss Barbara Jacobson, Synodical Presbyterian Hospital, Waterloo, Iowa—Active, 1917.

AMERICAN HOSPITAL ASSOCIATION

- *Kern, Mrs. Mary Frances, 1340 Congress Hotel, Chicago, Ill.—Associate Life, 1921.
- Kerns, R.N., Miss Anna E., Superintendent, Van Wert County Hospital, Van Wert, Ohio—Active, 1923.
- Kerr, R.N., Miss Elizabeth, Superintendent, Dr. Coleman's Hospital, Troy, Ohio—Active, 1923.
- *Kerr, J. Z., Superintendent, Cleveland Homeopathic Hospital, Cleveland, Ohio—Active, 1923.
- Kettering, Miss V. A., Superintendent, Grace Hospital, Hutchinson, Kan.—Active, 1921.
- Keyes, R.N., Miss Vera E., Directress of Nurses, Christian H. Buhl Hospital, Sharon, Pa.—Associate, 1923.
- Kidder, Nathaniel T., Trustee, Massachusetts General Hospital, Milton, Mass.—Active, 1915.
- Kimball, Dwight D., Advisory Council, Department of Health, New York City—Associate, 1916.
- *Kinder, R.N., Miss Annie S., Superintendent, Children's Hospital, Winnipeg, Man.—Active, 1922.
- *Kingston, Miss Daisy C., Superintendent, White Cross Hospital, Columbus, Ohio—Active, 1919.
- *Kirchgessner, Jr., W. E., Blodgett Memorial Hospital, Grand Rapids, Mich.—Associate, 1921.
- Kirk, R.N. Miss Violet L., Superintendent, Anna Jaques Hospital, Newburyport, Mass.—Active, 1920.
- Kirkbride, Franklin B., 7 Wall Street, New York City—Honorary, 1904.
- Kistler, Mrs. Carrie O., President, Children's Hospital, Denver, Colo.—Active, 1922.
- Kivett, Tunis, Superintendent, Lancaster General Hospital, Lancaster, Pa.—Active, 1922.
- Klaeser, Miss Florence, Secretary and Manager, White Hospital, Sacramento, Calif.—Active, 1921.
- Klauser, Eldred, Trustee and General Manager, Oconto County and City Hospital, Oconto, Wis.—Active, 1921.
- Klopp, M.D., Henry I., Superintendent, State Homeopathic Hospital, Allentown, Pa.—Active, 1916.
- Knapp, R.N., Miss Macie N., 62 E. Division Street, Chicago, Ill.—Active, 1917.
- Knepp, M.D., J. Warren, Watts Hospital, West Durham, N. C.—Active, 1917.
- Knight, Mrs. Sarah, Superintendent, Ashbury Methodist Episcopal Deaconess Hospital, Minneapolis, Minn.—Active, 1909.
- Kochersperger, H. M., Trustee, Grace Hospital Society, New Haven, Conn.—Active, 1920.
- Koelmel, Eugene V., Superintendent, Central Sanitarium, Brooklyn, N. Y.—Active, 1922.
- Korndoerfer, M.D., August, Medical Director, Children's Homeopathic Hospital, Philadelphia, Pa.—Active, 1917.
- Krantz, M.D., J. A., Superintendent, Bethesda Hospital, St. Paul, Minn.—Active, 1916.
- Krehbiel, L. P., Superintendent, Halstead Hospital, Halstead, Kansas—Active, 1920.
- Kuebler, Mrs. M. G., Superintendent, Oklahoma Methodist Hospital, Guthrie, Okla.—Active, 1922.
- Kurtz, Miss Ida M., Superintendent, Northwestern General Hospital, Philadelphia, Pa.—Active, 1916.

AMERICAN HOSPITAL ASSOCIATION

- Ladd, Miss Frances C., Superintendent, Faulkner Hospital, Jamaica Plain, Mass.—Active, 1922.
- Laidlaw, M.D., W. A., Secretary, Northern Pacific Beneficial Association, St. Paul, Minn.—Associate, 1914.
- Laidlaw, M.D., W. C., Provincial Health Officer, Department of Public Health, Edmonton, Alberta—Associate, 1914.
- *Laird, M.D., A. T., Superintendent, Nopeming Sanatorium, Nopeming, Minn.—Active, 1917.
- Lake, Amzi, Superintendent, Masonic Home, Burlington, N. J.—Active, 1916.
- Lambert, James N., Trustee, W. H. Groves Latter-Day Saints Hospital, Salt Lake City, Utah—Active, 1922.
- Lamborn, H., Superintendent, Park Avenue Hospital, Denver, Colo.—Active, 1916.
- Lamont, M.D., J. G., Superintendent, North Dakota Tuberculosis Sanatorium, Dunseith, N. Dak.—Active, 1922.
- Land, R.N., Miss Mary A., Superintendent, Mount Vernon Hospital, Mount Vernon, N. Y.—Active, 1916.
- *Landers, M.D., George B., Superintendent, Highland Hospital, Rochester, N. Y.—Active, 1920.
- Landers, M.D., M. B., 1402 David Whitney Bldg., Detroit, Mich.—Associate, 1921.
- *Landh, Miss Svea, Superintendent, St. Luke's Methodist Hospital, Cedar Rapids, Iowa—Active, 1918.
- Landis, R.N., Miss E. K., Superintendent, Harrisburg Polyclinic Hospital, Harrisburg, Pa.—Active, 1922.
- Lane, Mrs. P. H., Superintendent, Kenwood Sanitarium, Philadelphia, Pa.—Active, 1922.
- Langley, R.N., Miss Aida E., (Address Unknown)—Active, 1916.
- Langley, Miss Belle E., Dent, Minn.—Active, 1920.
- Langrill, M.D., Walter F., Superintendent, Hamilton City Hospital, Hamilton, Ont.—Active, 1912.
- Langwig, Miss Harriet A., Directress of Nurses, St. Luke's Homeopathic Hospital, Philadelphia, Pa.—Associate, 1923.
- Lapp, John A., Director, Social Action Department, National Catholic Welfare Council, Chicago, Ill.—Active, 1921.
- Larrabee, R.N., Mrs. Dovie C., Superintendent, Larrabee Hospital, Bradentown, Fla.—Active, 1921.
- Lathrop, M.D., H. R., President, Casper Private Hospital, Casper, Wyo.—Active, 1914.
- Lathrop, M.M., Walter, Superintendent, Hazleton State Hospital, Hazleton, Pa.—Active, 1922.
- *Laub, M.D., Raymond G., Medical Superintendent, Greenpoint Hospital, Brooklyn, N. Y.—Active, 1919.
- *Laughlin, Miss Anna E., Superintendent, Waynesboro Hospital, Waynesboro, Pa.—Active, 1916.
- *Lauman, Miss Anna W., Superintendent of Nurses, Roper Hospital, Charleston, S. C.—Active, 1914.
- *Laurence, R.N., Miss Ella A., Superintendent, Community Hospital, New York City—Active, 1915.
- *Lawin, Mrs. Aloysia, Franklin County Tuberculosis Sanatorium, Columbus, Ohio—Active, 1921.
- Lawler, Miss E. M., Superintendent of Nurses, Johns Hopkins Hospital, Baltimore, Md.—Associate, 1913.
- Lawler, M.D., J. M., New York Polyclinic Medical School and Hospital, New York City—Active, 1918.

AMERICAN HOSPITAL ASSOCIATION

- *Lawrence, Rev. J., Rector and Manager, Dodgeville Lutheran Hospital, Dodgeville, Wis.—Active, 1923.
- *Leach, R.N., Miss Jessie E., Superintendent, Samaritan Hospital, Brooklyn, N. Y.—Active, 1923.
- Leach, Miss Julia M., Somerville Hospital, Somerville, Mass.—Active, 1922.
- Leahy, Miss Josephine M., 64 St. James Place, Brooklyn, N. Y.—Associate, 1922.
- Leak, M.D., R. L., Superintendent, Connecticut State Hospital, Middleton, Conn.—Active, 1923.
- *Leake, M.D., W. W., Superintendent, Charity Hospital, New Orleans, La.—Active, 1921.
- *Lee, Charles, Superintendent, Waterbury Hospital, Waterbury, Conn.—Active, 1922.
- *Leeson, Mrs. E. M., Superintendent, Nicholls' Hospital, Peterborough, Ont.—Active, 1923.
- Le Febre, Miss T. H., Principal, City Hospital School of Nursing, Welfare Island, N. Y.—Associate, 1916.
- Lehman, Mrs. E. K., Business Manager, Woman's Hospital, Philadelphia, Pa.—Active, 1923.
- Leiper, E. F., Superintendent, Hospital of the Protestant Episcopal Church in Philadelphia, Philadelphia, Pa.—Active, 1913.
- Leipziger, Rabbi Emil W., Trustee, Touro Infirmary, New Orleans, La.—Active, 1920.
- Leitenberger, Mrs. J. F., President, St. Luke's Homeopathic Hospital, Philadelphia, Pa.—Active, 1923.
- Lemon, Miss Gladys, c/o Rockefeller Foundation, Nurses' Quarters, Peking, China—Active, 1921.
- *Lentz, M.D., C. S., Superintendent, University Hospital, Augusta, Ga.—Active, 1923.
- Leonard, M.D., I. E., Superintendent, Dr. Leonard's Private Sanitarium, Atlantic City, N. J.—Associate, 1918.
- Leonissa, Sister, St. Elizabeth's Hospital Association, Lafayette, Ind.—Active, 1922.
- Levis, Archie M., Beth Israel Hospital, New York City—Associate, 1914.
- Levison, J. B., Trustee, Mount Zion Hospital, San Francisco, Calif.—Active, 1910.
- Levy, Louis Cooper, Superintendent, Jewish Hospital, Cincinnati, Ohio—Active, 1916.
- *Lewis, R.N., Miss Adelaide M., Superintendent, Kewanee Public Hospital, Kewanee, Ill.—Active, 1908.
- Lewis, M.D., Edwin R., Superintendent, Easton Hospital, Easton, Pa.—Active, 1913.
- Lewis, R.N., Miss Edythe G., Apartment 11, 127 W. 4th St., Long Beach, Calif.—Active, 1922.
- *Lewis, M.D., Mary R., Medical Director, West Philadelphia Hospital for Women, Philadelphia, Pa.—Active, 1922.
- Lewis, Miss Ora Mabelle, Massachusetts General Hospital, Boston, Mass.—Associate, 1920.
- Lewisohn, Adolph, Trustee, Beth Israel Hospital, New York City—Active, 1921.
- Libby, Miss Alla A., 31 Hobart Road, Newton Centre, Mass.—Active, 1922.
- Lichty, M.D., John A., Superintendent, Clifton Springs Sanitarium, Clifton Springs, N. Y.—Active, 1923.
- Lilley, R.N., Miss Bertie, Superintendent, Parnassus Club, Infirmary and Dispensary, New York City—Active, 1924.

AMERICAN HOSPITAL ASSOCIATION

- *Lindblad, C. A., Superintendent, Millard Fillmore Hospital, Buffalo, N. Y.—Active; 1916.
- *List, M.D., Walter E., Superintendent, Minneapolis General Hospital, Minneapolis, Minn.—Active, 1920.
- *Little, R.N., Miss Edna R., Superintendent, Canonsburg General Hospital, Canonsburg, Pa.—Active, 1923.
- Littlefield, E. N., Trustee, Memorial Hospital, Pawtucket, R. I.—Active, 1916.
- Littlefield, Miss Julia A., 50 Pleasant St., Springvale, Maine—Active, 1909.
- Livermore, Paul S., Commissioner, State Board of Charities, Ithaca, N. Y.—Associate, 1921.
- Livingston, M.D., William Harold, Assistant Medical Director, Montefiore Hospital for Chronic Diseases, New York City—Active, 1922.
- Loase, Fred J., Superintendent, Flower Hospital, New York City—Active, 1922.
- Lockerby, Miss Anna C., Superintendent, Mary Hitchcock Memorial Hospital, Hanover, N. H.—Active, 1915.
- Lockwood, Wilton Moore, Trustee Paterson General Hospital, Paterson, N. J.—Active Life, 1922.
- Loder, Cornelius S., 30 Church St., New York City—Active Life, 1916.
- Lodge, Hon. Frank T., Detroit, Mich.—Honorary, 1910.
- Loeb, M.D., H. W., Jewish Hospital, St. Louis, Mo.—Active, 1921.
- *Logan, Miss Laura R., Superintendent of Nurses, Cincinnati General Hospital, Cincinnati, Ohio—Associate, 1921.
- Lo Grasso, M.D., Horace, Superintendent, J. N. Adam Memorial Hospital, Perrysburg, N. Y.—Active, 1923.
- Lohman, Rev. A. G., Deaconess Hospital, Cincinnati, Ohio—Active, 1921.
- Lomas, M.D., A. J., Superintendent, University Hospital, University of Maryland, Baltimore, Md.—Active, 1920.
- Londrigan, M.D., Joseph F., President of Medical Staff, St. Mary's Hospital, Hoboken, N. J.—Associate, 1922.
- Louis, R.N., Miss Marie, Superintendent, Muhlenberg Hospital, Plainfield, N. J.—Active, 1920.
- Love, Miss May L., Superintendent, Litchfield County Hospital, Winsted, Conn.—Active, 1916.
- Loveland, Mr. F. A., President, Corry Hospital, Corry, Pa.—Active, 1912.
- *Loveridge, Miss Emily L., Superintendent, Good Samaritan Hospital, Portland, Ore.—Active, 1921.
- *Lowe, Miss Laura E., Superintendent, Bartholomew County Hospital, Columbus, Ind.—Active, 1923.
- Lowry, Miss Grace D., Superintendent, Bethesda Hospital, Zanesville, Ohio—Active, 1923.
- Lucia, R.N., Mrs. Mildred H., Superintendent, Mount Washington Sanatorium, Eau Claire, Wis.—Active, 1921.
- Ludekens, Miss Virginia F., Superintendent, Homestead Hospital, Homestead, Pa.—Active, 1913.
- Ludy, Miss Mary B., Directress of Nurses, Massillon City Hospital, Massillon, Ohio—Active, 1914.
- Lurkins, Miss Frances L., Superintendent, Laura Franklin Hospital for Children, New York City—Active Life, 1902.
- *Lutes, J. Dewey, Superintendent, Lake View Hospital Association, Chicago, Ill.—Active, 1923.
- Lutts, R.N., Mrs. Florence M. V. (Address Unknown)—Active, 1920.
- Lyon, R.N., Miss Ruth L., Superintendent, Montevideo Hospital, Montevideo, Minn.—Active, 1921.
- *Lyons, Harry C., 235 East 44th St., New York City—Associate, 1920.

AMERICAN HOSPITAL ASSOCIATION

- MacCorison, M.D., Carl C., Superintendent, Reading State Sanatorium, North Wilmington, Mass.—Active, 1912.
- *MacCurdy, Frederick, Joint Administrative Board, 17 E. 42nd St., New York City—Active, 1923.
- *MacDonald, Miss Calvina, Superintendent, Maternity Hospital, Cleveland, Ohio—Active, 1921.
- MacDonald, Miss Charlotte C., Assistant Superintendent, Charlesgate Hospital, Cambridge, Mass.—Associate, 1913.
- MacDonald, Miss Mary E., 209 Front St., Stratford, Ont.—Active, 1921.
- *MacEachern, M.D., Malcolm T., Associate Director, American College of Surgeons, Hospital Activities, Chicago, Ill.—Active Life, 1915.
- Macfadden, R.N., Miss Shannah N., Superintendent, Leominster Hospital, Leominster, Mass.—Active, 1922.
- MacFarland, M.D., C. H., Superintendent, Cleveland City Hospital, Cleveland, Ohio—Active, 1916.
- *MacGowan, M.D., Birkhead, Superintendent, Sydenham Hospital, Baltimore, Md.—Active, 1921.
- *MacIver, M.D., George A., Assistant Director, Massachusetts General Hospital, Boston, Mass.—Active, 1920.
- Mack, M.D., Charles B., Medical Director, Episcopal Eye, Ear and Throat Hospital, Washington, D. C.—Active, 1923.
- Mackay, M.D., Alexander, Inspector of Hospitals and Public Charities for the Province of Ontario, Toronto, Ont.—Active, 1918.
- MacKenzie, Miss Jessie, Superintendent, Provincial Royal Jubilee Hospital, Victoria, B. C.—Active, 1909.
- MacKinney, Miss Lydia, Superintendent, Shenango Valley Hospital, New Castle, Pa.—Active, 1916.
- MacKintire, G. W., Trustee, Hospital Cottages for Children, Baldwinville, Mass.—Active, 1921.
- Mackintosh, M.B., M.V., O.M., Donald J., Superintendent, Western Infirmary, Glasgow, Scotland—Honorary, 1908.
- MacKnight, M.D., Adam S., Superintendent, Bristol County Tuberculosis Hospital, Attleboro, Mass.—Active, 1922.
- *MacLaren, Mrs. A. F., Superintendent, Warren General Hospital, Warren, Pa.—Active, 1914.
- MacLaughlin, Miss Zillah, Superintendent, Massachusetts Woman's Hospital, Boston, Mass.—Active, 1922.
- MacLean, R.N., Miss Helen, Walker County Hospital, Jasper, Ala.—Active, 1912.
- MacLeod, Christine, Lowell General Hospital, Lowell, Mass.—Active, 1922.
- MacLeod, Miss Mary, Superintendent, MacLeod Hospital, Boston, Mass.—Active, 1913.
- MacMillan, Miss L. V., Supervisor, Burley Hospital, Almont, Mich.—Associate, 1921.
- MacNichols, Miss C. E., Superintendent, St. Peter's Hospital, Charlotte, N. C.—Active, 1916.
- MacNichols, Miss Ella H., Superintendent, Anson Sanatorium, Wadesboro, N. C.—Active, 1916.
- *Madden, Miss Florence Mck., Superintendent, Euclid Creek Sanatorium, Cleveland, Ohio—Active, 1923.
- Mader, Miss Eva A., Superintendent, Mader Hospital, Halifax, N. S.—Active, 1920.
- Magid, M.D., M. O., Bronx Hospital, Bronx, New York City—Active, 1922.
- Mahaney, Miss J. Geraldine, Superintendent, Memorial Hospital, Owosso, Mich.—Active, 1921.
- Malcomson, W. G., Detroit, Mich.—Associate, 1912.

AMERICAN HOSPITAL ASSOCIATION

- Mallory, Charles A., President, Danbury Hospital, Danbury, Conn.—Active, 1920.
- Mallory, Mrs. Charles, Clifton on the Sound, Port Chester, N. Y.—Active, 1915.
- *Malmgren, Miss Hanna, Superintendent, Manchester Memorial Hospital, Manchester, Conn.—Active Life, 1922.
- Manary, M.D., James W., Boston City Hospital, Boston, Mass.—Associate, 1913.
- Mansfield, Miss Bernice, Bureau of Medicine and Surgery, Navy Department, Washington, D. C.—Associate, 1916.
- Marden, Miss Edith, Superintendent, Waltham Hospital, Waltham, Mass.—Active, 1922.
- Margerum, Miss Mary L., Superintendent, Findlay Home and Hospital, Findlay, Ohio—Active, 1921.
- *Mariette, M.D., Ernest S., Superintendent, Glen Lake Sanatorium, Oak Terrace, Minn.—Active, 1923.
- *Marsh, R.N., Miss Lillian, Superintendent, Mary Frances Skiff Hospital, Newton, Iowa—Active, 1921.
- Marshak, M.D., M. I., Bayonne, N. J.—Active, 1922.
- Marshall, R. N., Miss Mary C., Superintendent, Marion County Hospital, Ocala, Fla.—Active, 1922.
- *Marshall, Rev. Thomas C., Trustee, Hospital of the Good Samaritan, Los Angeles, Calif.—Active, 1923.
- *Martin, Miss Carol L., Presbyterian Hospital School of Nursing, Chicago, Ill.—Associate, 1912.
- Martin, M.D., Franklin H., Director-General, American College of Surgeons, Chicago, Ill.—Active, 1920.
- Martin, R.N., Miss Missouria, Hawthorn Ave., Port Chester, N. Y.—Active, 1922.
- Martin, Miss Ruth E., Superintendent, Mounds Park Sanitarium, St. Paul, Minn.—Active, 1921.
- *Marting, Miss Erma C., Superintendent of Nurses, Marting Hospital, Ironton, Ohio—Associate, 1922.
- *Marting, M.D., W. F., Marting Hospital, Ironton, Ohio—Active, 1921.
- Marvel, M.D., Philip, 1616 Pacific Ave., Atlantic City, N. J.—Active, 1922.
- Mary, Sister, Superioress, The Glockner Sanatorium, Colorado Springs, Colo.—Active, 1922.
- Mary, Sister St., Superintendent, St. Mary's Free Hospital for Children, New York City—Active, 1911.
- Mary, Sister Margaret, Superintendent, St. Rita's Hospital, Lima, Ohio.—Active, 1922.
- Mason, M.D., B. Henry, Assistant Superintendent, Peter Bent Brigham Hospital, Boston, Mass.—Active, 1923.
- Mason, Jr., H. L., Vice-President, Allegheny General Hospital, Pittsburgh, Pa.—Active, 1923.
- Mason, M.D., J. Tate, Superintendent, King County Hospital, Seattle, Wash.—Active, 1921.
- Masson, Monsgr. Peter, Director, Sacred Heart Hospital, Allentown, Pa.—Active Life, 1917.
- *Mateer, Miss Margaret B., Professional Superintendent of Hospitals, Lucas County Hospital, Toledo, Ohio—Active, 1914.
- Mather, Samuel, President, Lakeside Hospital, Cleveland, Ohio—Active, 1912.
- *Matlick, Miss Bertha, Superintendent, Hill Crest Surgical Hospital, Minneapolis, Minn.—Active, 1914.
- *Matthews, Elmer E.—Superintendent, Wilkes-Barre City Hospital, Wilkes-Barre, Pa.—Active, 1918.

- Matthews, Fred W., Trustee, Charity Hospital, New Orleans, La.—Active, 1920.
- Matthews, Miss Lenna, Superintendent of Nurses, Aultman Hospital Association, Canton, Ohio—Associate, 1916.
- Mauney, J. H., Superintendent, Fort Sanders Hospital, Knoxville, Tenn.—Active, 1916.
- Maxwell, Miss Anna C., 510 Park Ave., New York City—Associate, 1914.
- May, M.D., James V., Superintendent, Boston State Hospital, Boston, Mass.—Active, 1923.
- May, Morton J., Trustee, Jewish Hospital of St. Louis, St. Louis, Mo.—Active, 1920.
- Mayer, Alfred, Administrator, Jewish Hospital, Philadelphia, Pa.—Active, 1923.
- *Mays, James R., Superintendent, Garfield Memorial Hospital, Washington, D. C.—Active, 1921.
- Mays, Miss Margaret A., Superintendent, Eastern Dispensary and Casualty Hospital, Washington, D. C.—Active, 1923.
- McCarthy, Miss Cecelia, Superintendent, Holden Hospital, Holden, Mass.—Active, 1922.
- McCarthy, Miss Nora T., Superintendent of Nurses, Greenpoint Hospital, Brooklyn, N. Y.—Active, 1919.
- *McClain, I. W. J., Superintendent, St. Luke's Home and Hospital, Utica, N. Y.—Active, 1917.
- McClain, M.D., R. P., Chairman Hospital Board, Mercy Hospital, Cincinnati, Ohio—Active, 1923.
- *McClaslin, Miss Ida, Secretary, State Board Nurse Examiner, Lebanon, Ind.—Associate, 1921.
- *McCleery, Miss Ada Belle, Superintendent, Evanston Hospital Association, Evanston, Ill.—Active, 1922.
- McClellan, Edwin, Trustee, Mary McClellan Hospital, Cambridge, N. Y.—Active, 1920.
- McCollam, R.N., Miss L. Maude, Superintendent, Huntsville Infirmary, Huntsville, Ala.—Active, 1923.
- McCombs, M.D., Carl E., Bureau of Municipal Research, New York City—Associate, 1923.
- McConnell, Miss Anastasia, Assistant Superintendent, Mercy Maternity Hospital, Charleston, S. C.—Active, 1916.
- McConnell, M.D., John S., Superintendent Samaritan Hospital, Philadelphia, Pa.—Active, 1922.
- McConnell, Miss Katherine, Superintendent, Portage County Hospital, Ravenna, Ohio—Active, 1921.
- McCreight, Miss Emily M., Superintendent, Arnot Ogden Memorial Hospital, Elmira, N. Y.—Active, 1918.
- McCullough, Miss Grace E., Peking Union Medical College, Peking, China.—Associate, 1917.
- McDaniel, R.N., Miss Maria, Superintendent, Noble Hospital, Westfield, Mass.—Active, 1920.
- McDevitt, Miss Helen C., Superintendent, White Haven Sanatorium, White Haven, Pa.—Active, 1922.
- *McDonald, M.D., Archibald L., Secretary, Medical Board, St. Luke's Hospital Association, Duluth, Minn.—Active, 1923.
- McDonald, Miss Rosalie C., Superintendent, Quanah Sanitarium, Quanah, Texas—Active, 1922.
- *McElderry, Miss Grace D., Superintendent, Hackley Hospital, Muskegon, Mich.—Active, 1915.

AMERICAN HOSPITAL ASSOCIATION

- *McElroy, M.D., J. L., Superintendent, The Ancker Hospital, St. Paul, Minn.—Active, 1923.
- McElroy, Mrs. Marie T., Treasurer, Children's Hospital, Columbus, Ohio—Active, 1921.
- McGarry, Miss Mary C., Superintendent, Charter Oak Private Hospital, Hartford, Conn.—Active, 1911.
- *McGinley, R.N., Miss Agnes P., Superintendent, Athens General Hospital, Athens, Ga.—Active, 1921.
- McGinnis, C. S., Superintendent, Parsons State Hospital, Parsons, Kansas—Active, 1923.
- McGinty, M.D., F. E., Dr. McGinty's Hospital, Mt. Pocono, Pa.—Active, 1922.
- McGirk, M.D., Charles E., Dr. McGirk Sanitarium, Philipsburg, Pa.—Active, 1923.
- McIntosh, M.D., George A., Medical Superintendent, Victoria General Hospital, Halifax, N. S.—Active, 1923.
- McIntyre, Miss Ellen M., Superintendent, United Hospital, Port Chester, N. Y.—Active, 1916.
- McKee, R.N., Miss Gertrude I., West Salem, Ohio—Active, 1917.
- McLaughlin, Miss Anna E., Superintendent, Samaritan Hospital, Ashland, Ohio—Active, 1916.
- McLaughlin, James E., 88 Tremont St., Boston, Mass.—Associate, 1922.
- McLennan, Miss F. L., Superintendent, Portsmouth Hospital, Portsmouth, N. H.—Active, 1922.
- McMahan, M.D., Adah, St. Elizabeth Hospital, Lafayette, Ind.—Active, 1921.
- *McMahon, J. E., Superintendent, Ramsay County Infirmary, North St. Paul, Minn.—Active, 1923.
- McMillan, M.D., W. A., Physician in Charge, McMillan Hospital, Charleston, W. Va.—Active, 1917.
- McNamara, M.D., E. P., Finley Hospital, Dubuque, Iowa—Active, 1922.
- McNaugher, Mrs. D. W., Trustee, Columbus, Columbia Hospital, Wilksburg, Pa.—Active, 1923.
- McNeel, R.N., Miss Mabel L., Bridgeport Hospital, Bridgeport, Conn.—Active, 1920.
- *McRae, M.D., Alexander J., Superintendent, St. Luke's Hospital, Duluth, Minn.—Active, 1914.
- McWilliams, R.N., Miss Olive, Superintendent, Monongahela Memorial Hospital, Monongahela, Pa.—Active, 1922.
- *Meachem, Junior., M.D., J. G., President, Alice Horlick Memorial Hospital Association, Racine, Wis.—Active, 1921.
- Meade, R.N., Miss Edith P., Superintendent of Nurses, Chester Hospital, Chester, Pa.—Active, 1921.
- Medd, Rev. Henry, St. Paul's Methodist Episcopal Church, Waterbury, Conn.—Associate, 1921.
- Medendorp, Miss Anna, Superintendent, DeKalb Public Hospital, DeKalb, Ill.—Active, 1921.
- *Mehring, H. S., Business Director, Pennsylvania Hospital, Philadelphia, Pa.—Active, 1923.
- Meiklejohn, Miss Harriet T., Director, Public Health Nursing Service, St. John Health Center, St. John, N. B.—Associate, 1915.
- *Meisenholder, M.D., E. W., Physician in Charge, West Side Sanitarium, York, Pa.—Active, 1916.
- Meister, G. W., Superintendent, St. Luke's Homeopathic Hospital, Philadelphia, Pa.—Active, 1922.

AMERICAN HOSPITAL ASSOCIATION

- *Meitzler, R.N., Mrs. Kathryn K., Superintendent, Kaspare Cohn Hospital, Los Angeles, Calif.—Active, 1923.
- Mercier, M.D., O. F., Chief Surgeon, Notre Dame Hospital, Montreal, Quebec—Active, 1920.
- Merriam, E. B., Director of Industrial Relations, Emergency Hospital, General Electric Co., Schenectady, N. Y.—Active, 1921.
- Merriman, Mrs. Clifflie U., Trustee, Cleveland Maternity Hospital, Cleveland, Ohio—Associate, 1921.
- Merrill, M.D., L. C., Superintendent, Illinois General Hospital, Chicago, Ill.—Active, 1921.
- Metcalfe, Miss Rachael A., Superintendent, Central Maine General Hospital, Lewiston, Maine—Active, 1907.
- Metz, Miss Mary H., Strasburg, Ohio—Associate, 1917.
- *Meyer, Alfred C., President, Michael Reese Hospital, Chicago, Ill.—Active Life, 1921.
- *Meyer, J. W., Manager, Aurora Hospital, Aurora, Ill.—Active, 1919.
- *Middleton, Miss Ila M., 6039 Palo Pinto Ave., Dallas, Texas—Associate, 1921.
- *Middleton, Miss May A., Superintendent, Methodist Episcopal Hospital, Philadelphia, Pa.—Active, 1916.
- *Milburn, Miss Eva, Superintendent, Putnam County Hospital, Greencastle, Ind.—Active, 1916.
- Miller, Miss Bertha, Superintendent, City Hospital, East Liverpool, Ohio—Active, 1921.
- Miller, Miss Elizabeth, Superintendent, Dover General Hospital, Dover, N. J.—Active, 1916.
- Miller, Miss Elsie I., Superintendent, Frankford Hospital, Philadelphia, Pa.—Active, 1923.
- *Miller, M.D., F., Chief of Staff, Masonic Hospital, El Paso, Texas—Active, 1923.
- Miller, M.D., Frank S., Medical Director, Edgecliff Sanatorium, Spokane, Wash.—Active, 1922.
- Miller, Herman P., Trustee, Harrisburg Hospital, Harrisburg, Pa.—Active, 1923.
- Miller, Joe F., Superintendent, Methodist Hospital of Central Illinois, Peoria, Ill.—Active, 1922.
- Miller, R.N., Miss Mary B., Superintendent, Presbyterian Hospital, Pittsburgh, Pa.—Active, 1914.
- Miller, R.N., Miss Maude, Superintendent, City Hospital, Thomasville, Ga.—Active, 1923.
- Mills, Miss Maud E., 45 Franklin St., New London, Conn.—Associate, 1914.
- *Mills, William, Superintendent, Swedish Hospital, Minneapolis, Minn.—Active, 1921.
- Milne, Mrs. T. (Address Unknown)—Active Life, 1916.
- Minahan, Miss Elizabeth, Superintendent, Wilhenford Hospital, Augusta, Ga.—Active, 1916.
- Mindte, Miss Anna C., Superintendent of Nurses, Memorial Hospital, New York City—Associate, 1918.
- Minton, M.D., Henry M., Superintendent, Mercy Hospital and School for Nurses, Philadelphia, Pa.—Active, 1922.
- *Mintzes, R.N., Miss Florence R., Superintendent, Beth Israel Hospital and Home Society, Denver, Colo.—Active, 1921.
- Moe, M.D., Anton J., Moe Hospital, Sioux Falls, S. Dak.—Active, 1914.
- Moe, R.N., Miss Frances, Superintendent, Moe Hospital, Sioux Falls, S. Dak.—Active, 1920.

AMERICAN HOSPITAL ASSOCIATION

- Moffitt, J. K., First National Bank, San Francisco, Calif.—Associate, 1915.
- *Mohler, M.D., H. K., Medical Director, Jefferson Hospital, Philadelphia, Pa.—Active, 1916.
- Monahan, W. J., Medical Director, Hudson County Hospital, Laurel Hill, Secaucus, N. J.—Active, 1922.
- Montague, Miss Mary A., Assistant Superintendent, Broad Street Hospital, New York City—Active Life, 1923.
- Montgomery, Mrs. Frances M., Montgomery Hospital, Greenville, S. C.—Active, 1914.
- Moore, M.D., D. C. Y., Trustee, Manchester Memorial Hospital, South Manchester, Conn.—Active, 1920.
- Moore, Mrs. Elizabeth E. H., Three Rivers, Mich.—Active, 1924.
- Moore, M.D., George Henry, Superintendent, Dr. G. H. Moore Hospital, Schuylkill Haven, Pa.—Active, 1922.
- Moore, R.N., Miss Helen deSpelder, Secretary, State Board of Registration of Nurses, Lansing, Mich.—Associate, 1921.
- *Moots, M.D., Charles W., Chief of Staff, Lucas County Hospital, Toledo, Ohio—Associate, 1922.
- More, M.D., C. W., More Hospital, Eveleth, Minn.—Active, 1916.
- *Morehouse, J. H., MacMillan Company, 430 W. 66th St., Chicago, Ill.—Active, 1921.
- Morgan, M. D., Aldine E., National Military Home, Hampton, Va.—Active, 1921.
- Morgan, M.D., Esther, Superintendent of Nurses, Hampton Training School for Nurses, Hampton, Va.—Active, 1910.
- Morlok, Frederic B., Superintendent, Memorial Hospital, Richmond, Va.—Active, 1914.
- *Morrill, M. D., Donald M., Chief Resident Physician, University of Michigan Hospital, Ann Arbor, Mich.—Active, 1920.
- *Morrill, M.D., W. P., Superintendent, Shreveport Charity Hospital, Shreveport, La.—Active, 1920.
- Morris, Miss Anna L., Superintendent, White Haven Sanatorium, White Haven, Pa.—Active, 1916.
- Morris, M.D., C. C., Superintendent, St. Louis Baptist Hospital, St. Louis, Mo.—Active Life, 1910.
- Morrison, Miss Carolina B., Soldiers' Home, Lafayette, Ind.—Active, 1921.
- *Morrow, M.D., Joseph R., Superintendent, Bergen County Hospital, Ridgewood, N. J.—Active, 1917.
- Mosher, M.D., B. E., Battle Creek Sanitarium, Battle Creek, Mich.—Active, 1923.
- Mosher, M.D., J. Montgomery, 170 Washington Ave., Albany, N. Y.—Honorary, 1905.
- Mossell, M.D., N. F., Superintendent, Frederick Douglas Memorial Hospital, Philadelphia, Pa.—Active, 1916.
- Moulton, David P., Secretary of Board of Trustees, Homeopathic Hospital of Rhode Island, Providence, R. I.—Active, 1921.
- Moyer, Miss Jessie E., Buhl Hospital, Sharon, Pa.—Associate, 1922.
- Moyer, Miss Katherine A., Hershey, Pa.—Active, 1909.
- Mucklow, Walter, St. Luke's Hospital Association, Jacksonville, Fla.—Associate, 1923.
- Mueller, Miss Margaret T., Central Club for Nurses, 132 E. 45th St. New York City—Active, 1916.
- *Mueller, Vincenz, 395 Monroe Ave., River Forest, Ill.—Associate, 1914.
- Muff, Miss Mary, Superintendent of Nurses, State Hospital, Kalamazoo, Mich.—Associate, 1921.

AMERICAN HOSPITAL ASSOCIATION

- *Munger, M.D., C. W., Superintendent, Blodgett Memorial Hospital, Grand Rapids, Mich.—Active, 1918.
- Munn, Alexandra M., Superintendent, Stratford General Hospital, Stratford, Ont.—Active, 1920.
- Murdock, Miss Jessie, Superintendent of Nurses, Jersey City Hospital, Jersey City, N. J.—Associate, 1922.
- Murphy, M.D., E. V., Medical Superintendent, Alexandra Hospital, Montreal, Quebec—Active, 1921.
- *Murphy, J. C., Director, Louisville Tuberculosis Association, Louisville, Ky.—Active, 1923.
- Murphy, M.D., James E., Wildwood Sanatorium, Hartford, Conn.—Associate, 1917.
- Murray, Miss A. C., Superintendent, Presbyterian Hospital, Newark, N. J.—Active, 1910.
- *Murray, M.D., Edward J., Medical Superintendent, Blue Grass Sanatorium, Lexington, Ky.—Active, 1923.
- *Murray, T. T., Superintendent, Saskatoon City, Saskatoon, Sask.—Active, 1921.
- Muslin, B. B., 2196 Atlantic Ave., Brooklyn, N. Y.—Active, 1917.
- Mutschmann, R.N., Miss Joan, Superintendent, La Crosse Lutheran Hospital, La Crosse, Wis.—Active, 1921.
- Myers, J. Norris, Charge of Medical Department, MacMillan Company, New York City—Associate, 1923.
- Myers, M.D., John Q., Medical Director, Tranquil Park Sanitarium, Charlotte, N. C.—Active, 1917.
- Myrick, M.D., Hannah G., 58 Sumner St., Dorchester 25, Mass.—Active, 1919.
- *Nafe, M.D., Cleon, Superintendent, Indianapolis, City Hospital, Indianapolis, Ind.—Active, 1923.
- Nash, Miss Jane E., Superintendent, Church Home and Infirmary, Baltimore, Md.—Active, 1911.
- Nash, M.D., W. S., Chief of Staff, Knoxville General Hospital, Knoxville, Tenn.—Active, 1920.
- Neely, Miss Eloise, Recording Secretary, Vaughan Memorial Hospital, Selma, Ala.—Associate, 1922.
- Neer, Miss Dorothy S., Superintendent, City Hospital, Springfield, Ohio—Active, 1919.
- *Neergard, Chas. F., Hospital Consultant, 18 E. 41st St., New York City—Active, 1916.
- *Neff, Robert E., Administrator, Robert W. Long Hospital, Indianapolis, Ind.—Active, 1920.
- Nere, Sister Philip, Superior, St. Mary Hospital, Pueblo, Colo.—Active, 1922.
- Neuenschwander, Mrs. W. E., 2015 Broadway, Fort Wayne, Ind.—Associate, 1917.
- Neumer, Howard E., Bethlehem, Pa.—Active, 1918.
- Nevin, M.D., John, Medical Director, Jersey City Hospital, Jersey City, N. J.—Active, 1920.
- Nevins, Miss Georgia M., Superintendent, St. Luke's Hospital, New Bedford, Mass.—Active, 1909.
- Nevison, Miss Vida R., Bishop Clarkson Memorial Hospital, Omaha, Nebr.—Active, 1922.
- Newberry, Truman H., Trustee, Grace Hospital, Detroit, Mich.—Active, 1920.
- Newell, R.N., Miss Marletta S., Superintendent, Thanksgiving Hospital, Cooperstown, N. Y.—Active, 1920.
- Newell, R.N., Miss Mary Carr, Superintendent, Rutland Hospital, Rutland, Vt.—Active, 1920.

AMERICAN HOSPITAL ASSOCIATION

- Newington, R.N., Miss Jeanne, Box 4186, Havre, Mont.—Associate, 1912.
- Newman, Miss W. Maude, Superintendent, Sewickley Valley Hospital, Sewickley, Pa.—Active, 1916.
- Newton, M.D., W. R., Trustee, Cameron Hospital, Cameron, Texas—Associate, 1917.
- Nichols, M.D., John H., Superintendent, State Infirmary, Tewksbury, Mass.—Active, 1909.
- Nicholson, R.N., Miss Ethel M., Superintendent of Nurses, Lawrence Hospital, Winston-Salem, N. C.—Active, 1921.
- Nies, R.N., Miss Mary L., Superintendent, Frederick City Hospital, Frederick, Md.—Active, 1922.
- Nightingale, Miss Elizabeth B., Assistant Superintendent, Wesson Maternity Hospital, Springfield, Mass.—Active, 1909.
- Niles, R.N., Mrs. Eva T., Superintendent, Alice Hyde Memorial Hospital, Malone, N. Y.—Active, 1922.
- *Norby, Joseph G., Superintendent, Fairview Hospital, Minneapolis, Minn.—Active, 1923.
- *Norris, James U., Superintendent, Woman's Hospital, New York City.—Active, 1914.
- North, M.D., Henry, Glenwood Sanitarium, Webster Groves, St. Louis, Mo.—Active, 1922.
- *Northrop, R.N., Miss N. Adele, Superintendent, Finley Hospital, Dubuque, Iowa—Active, 1921.
- Noyes, M.D., Guy L., Superintendent, Parker Memorial Hospital, Columbia, Mo.—Active, 1910.
- Nudell, Miss Ida, Superintendent, Good Samaritan Hospital, Lebanon, Pa.—Active, 1908.
- *Nuzum, M.D., F. R., Medical Director, Santa Barbara Cottage Hospital, Santa Barbara, Calif.—Active, 1921.
- Nye, R.N., Miss Emma R., Superintendent of Nurses, American Hospital, Chicago, Ill.—Active, 1921.
- Nye, Mrs. Evangeline J., Superintendent, Children's Hospital of Buffalo, Buffalo, N. Y.—Active, 1920.
- *Oberg, Miss C. Irene, Superintendent, Sherman Hospital, Elgin, Ill.—Active, 1916.
- O'Brien, M.D., Francis E., Superintendent, Hampshire County Sanatorium, Haydenville, Mass.—Active, 1922.
- O'Brien, Reuben, Superintendent, Manhattan Eye, Ear and Throat Hospital, New York City—Active, 1901.
- *O'Brien, M.D., Stephen L., Chief of Staff, St. Mary's Hospital, Grand Rapids, Mich.—Associate, 1921.
- O'Connell, Rev. Joseph S., Assistant Director, Catholic Charities of Archdiocese of New York, New York City—Active, 1921.
- O'Connor, Mrs. E. M. (Address Unknown)—Active, 1921.
- O'Connor, John, Manager, St. Francis Hospital, San Francisco, Calif.—Active, 1916.
- Odom, R.N., Miss L. L., Superintendent, Sarah Leigh Hospital, Norfolk, Va.—Active, 1920.
- O'Donnell, Miss Rose, 419 E. 46th Place, Chicago, Ill.—Active, 1913.
- Oefstedal, Rev. A., Rector, Lutheran Deaconess Home and Hospital, Chicago, Ill.—Active, 1912.
- *Ogden, M.D., M. D., Secretary, Trinity Hospital, Little Rock, Ark.—Active, 1923.
- *O'Hanlon, M.D., George D., General Medical Superintendent Bellevue and Allied Hospitals, New York City—Active, 1917.

AMERICAN HOSPITAL ASSOCIATION

- *Olivia, K.N., Sister M., Superior, St. Mary's Hospital, Duluth, Minn.—Active, 1922.
- *Olsen, M.D., E. T., Superintendent, Englewood Hospital, Chicago, Ill.—Active, 1917.
- *Olsen, John H., Norwegian Lutheran Deaconess Home and Hospital, Brooklyn, N. Y.—Associate, 1920.
- Olson, G. W., Superintendent, California Lutheran Hospital, Los Angeles, Calif.—Active, 1910.
- Olyphant, Robert, 17 Battery Place, New York City—Associate, 1915.
- Ordway, M. D., Clarence S., Superintendent, East Side Hospital, Toledo, Ohio—Active, 1911.
- Osborn, M.D., H. D., Brinkley-Jones Hospital, Milford, Geary County, Kansas—Active, 1921.
- Osborne, Miss Mary R., Newark Memorial Hospital, Newark, N. J.—Active, 1922.
- Osterholm, Rev. A. N., Superintendent, Swedish Mission Hospital, Omaha, Nebr.—Active, 1917.
- Otis, M. D., Lloyd M., Superintendent, Otis Hospital, Celina, Ohio—Active, 1923.
- Oulton, M. D., Lamert, Memorial Hospital, Pawtucket, R. I.—Associate, 1914.
- Overton, M.D., W. S., Moore-Overton Hospital, Binghampton, N. Y.—Associate, 1909.
- *Owen, David F., Superintendent, Uniontown Hospital, Uniontown, Pa.—Active, 1923.
- Owsley, Charles F., Cuyahoga Building, Cleveland, Ohio—Associate, 1916.
- Pace, M.D., J. G., Superintendent, District Tuberculosis Hospital, Lima, Ohio—Active, 1922.
- Packard, George R., Manager, Pennsylvania Hospital, Philadelphia, Pa.—Active, 1923.
- *Packard, M.D., Loring B., 305 Prospect St., Brockton, Mass.—Active, 1912.
- Page, M.D., Henry F., Medical Superintendent, Lankenau Hospital, Philadelphia, Pa.—Active, 1916.
- Palmer, Charles S., Grace Hospital Society, New Haven, Conn.—Associate, 1920.
- *Palmer, R.N., Miss Jessie C., Chief of Staff, Social Service Bureau, Metropolitan Hospital, Welfare Island, N. Y.—Associate, 1922.
- Park, A. J., c/o A. M. Allen Co., 1900 Euclid Ave., Cleveland, Ohio—Associate, 1920.
- Parker, M.D., George A., Intervilla, Berks County, Pa.—Active, 1917.
- Parker, Miss Harriet E., 1207 Allegheny Ave., Philadelphia, Pa.—Active, 1916.
- Parkins, M.D., Leroy E., 21 Bay State Road, Boston, Mass.—Active, 1921.
- *Parnall, M.D., Christopher G., Superintendent, University Hospital, University of Michigan, Ann Arbor, Mich.—Active Life, 1918.
- *Parrish, Miss Nell F., Superintendent, Massillon City Hospital, Massillon, Ohio—Active, 1910.
- *Parshall, Cassius C., Parshall Private Hospital, Oneonta, N. Y.—Active, 1923.
- *Parshall, Mrs. Mary MacHenry, Superintendent, Parshall Private Hospital, Oneonta, N. Y.—Active, 1921.
- Pattee, Miss Alida F., 134 S. 1st Ave., Mt. Vernon, N. Y.—Associate, 1917.
- *Patterson, Miss Adah H., Superintendent, St. Luke's Hospital, St. Paul, Minn.—Active, 1921.
- Patterson, Miss E. G., Superintendent, Chambersburg Hospital, Chambersburg, Pa.—Active, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Patterson, R.N., Miss Ellen E., Superintendent, Lima Hospital, Lima, Ohio—Active, 1923.
- Paul, Miss Margaret A., Dill and Collins Paper Company, Philadelphia, Pa.—Associate, 1920.
- Paulson, R.N., Miss Hannah, Wisconsin Deaconess Hospital, Green Bay, Wis.—Active, 1921.
- Paxton, A. B., Trustee, Ohio Valley General Hospital, Wheeling, W. Va.—Active, 1920.
- Peabody, M.D., Joseph Winthrop, Superintendent, Tuberculosis Hospital, Washington, D. C.—Active, 1922.
- Peacock, M.D., J. H., Business Manager, Prairie du Chien Sanitarium and Hospital, Prairie du Chien, Wis.—Active, 1921.
- Pease, Miss Bessie M., Wisconsin Methodist Hospital Association, Madison, Wis.—Active, 1921.
- Peck, Miss Clara B., 129 Fillmore St., Rochester, N. Y.—Active, 1912.
- *Peck, Jerome F., Superintendent, Binghampton City Hospital, Binghampton, N. Y.—Active, 1920.
- *Pedersen, Rev. C. O., Rector, Norwegian Lutheran Deaconess Home and Hospital, Brooklyn, N. Y.—Active, 1920.
- *Pelton, M.D., C. H., Superintendent, Elyria Memorial Hospital, Elyria, Ohio—Active, 1922.
- *Penfrase, Edward L., 628 Monroe Building, Chicago, Ill.—Associate, 1921.
- *Pennock, Miss Meta, Managing Editor, The Trained Nurse and Hospital Review, New York City—Associate, 1923.
- *Pepmeier, Sister Caroline, Superintendent of Nurses, St. Lucas Evangelical Hospital, Faribault, Minn.—Associate, 1923.
- Perkins, M.D., John W., Manager, University Hospital Training School for Nurses, Kansas City, Mo.—Active, 1921.
- *Perry, Miss Maud Alice, Montreal General Hospital, Montreal, Quebec—Associate, 1917.
- Peskin, M.D., A., President, East Fifty-Fifth Street Hospital, Cleveland, Ohio—Active, 1912.
- Peters, M.D., John M., Superintendent, Rhode Island Hospital, Providence, R. I.—Active, 1901.
- Peterson, B. W., President, Ohio Valley General Hospital Association, Wheeling, W. Va.—Active, 1912.
- *Peterson, Miss Marion, Miami Valley Hospital, Dayton, Ohio—Associate, 1922.
- *Pettit, H. V., Superintendent, Tuberculosis Hospital, Ottawa, Ill.—Active, 1914.
- *Pfeiffer, R.N., Miss Charlotte, Superintendent, Stuart Circle Hospital, Richmond, Va.—Active, 1921.
- *Pfordt, R.N., Miss Minnie E., Superintendent and Director of Medical Social Workers, University Eye and Ear Dispensary and Pittsburgh Free Dispensary, Pittsburgh, Pa.—Active, 1921.
- Phelps, Glenn, Manager, Colonial Hospital, Rochester, Minn.—Active, 1921.
- Phillips, George E., Superintendent, Herman Kiefer Hospital, Detroit, Mich.—Active, 1916.
- Phillips, Miss Harriett M., Superintendent, Home for Destitute Crippled Children, Chicago, Ill.—Active, 1923.
- Pierce, M.D., Bradford H., Superintendent and Medical Director, Plymouth County Hospital, South Hanson, Mass.—Active, 1920.
- Pierce, Hurley J., Assistant Superintendent, Robert Packer Hospital, Sayre, Pa.—Associate, 1923.
- Pilgrim, Walter T., Bayshore, Long Island, N. Y.—Active, 1920.

AMERICAN HOSPITAL ASSOCIATION

- *Pine, Miss Emily, Superintendent, St. Luke's Hospital, Boise City, Idaho—Active, 1916.
- Pinkerton, Miss Elizabeth, Tuxedo Memorial Hospital, Tuxedo, N. Y.—Active, 1922.
- Pinkerton, M.D., W. T., Medical Director, Prairie du Chien Sanitarium and Hospital, Prairie du Chien, Wis.—Active, 1921.
- *Pitcher, Charles S., Superintendent, Presbyterian Hospital, Philadelphia, Pa.—Active, 1913.
- *Pollak, M.D., B. S., Medical Director, Hudson County Tuberculosis Hospital and Sanatorium, Secaucus, N. J.—Active, 1922.
- Pollock, M.D., Henry M., Massachusetts Homeopathic Hospital, Boston, Mass.—Active, 1915.
- Pond, Miss E. Louise, Grasslands Hospital, Valhalla, Westchester County, N. Y.—Associate, 1918.
- Pond, Miss Kathryn M., Superintendent, Lakeside Methodist Hospital, Rice Lake, Wis.—Active, 1923.
- Pool, M.D., H. J., The Pool Hospital, Port Clinton, Ohio—Active, 1914.
- Poole, Miss Imogene, Resident Director, Unity House, Minneapolis, Minn.—Associate, 1920.
- Porter, Herbert G., Trustee, Malden Hospital, Boston, Mass.—Active 1912.
- Post, Robert C., President, Englewood Hospital Association, Englewood, N. J.—Active, 1921.
- Pothe, Miss Blanche, 399 Park Ave., New York City—Associate, 1919.
- Potter, Miss Lucy J., Superintendent, Trull Hospital, Biddeford, Maine—Active, 1913.
- *Potts, Miss Florence J., c/o Miss Sara Freeman, Adair Realty and Trust Co., Atlanta, Ga.—Associate, 1909.
- Pound, Miss Clara B., Superintendent, Engels Memorial Hospital, Harvey, Ill.—Active, 1916.
- Powell, Miss C. M., Superintendent of Nurses, Springfield Hospital, Springfield, Mass.—Associate, 1922.
- Powell, Miss Louise M., Director, School of Nursing, University of Minnesota, Minneapolis, Minn.—Associate, 1914.
- Power, Mrs. Isabella A., Winona General Hospital, Winona, Miss.—Associate, 1923.
- Powers, Thomas H., Trustee, Howard Hospital, Philadelphia, Pa.—Active, 1923.
- Pratt, Harold I., President, Brooklyn Hospital, Brooklyn, N. Y.—Active, 1912.
- *Pratt, M.D., M. R., Superintendent, Union Hospital, Fall River, Mass.—Active, 1911.
- Prentiss, F. F., President, St. Luke's Hospital, Cleveland, Ohio—Active Life, 1920.
- Prentiss, Miss Marion C., Department of Social Service, Cook County Hospital, Chicago, Ill.—Associate, 1918.
- *Pretzlaff, R.N., Sister Martha, Superintendent, Passavant Hospital, Pittsburgh, Pa.—Active, 1921.
- Prindiville, Miss K. M., Superintendent, Lawrence and Memorial Associated Hospital, New London, Conn.—Active, 1911.
- Pringle, M.D., F. D., Superintendent, Adrian Hospital, Punxsutawney, Pa.—Active, 1922.
- Proctor, Fred T., Trustee, St. Luke's Home and Hospital, Utica, N. Y.—Active, 1914.
- Puffer, W. M., Superintendent, Bronson Methodist Hospital, Kalamazoo, Mich.—Active, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Pugh, Miss M. Louise, Superintendent, Homeopathic Hospital, Wilmington, Del.—Active, 1916.
- *Purdum, R.N., Miss Sarah E., Superintendent, Corry Hospital, Corry, Pa.—Active, 1923.
- *Purvis, Joseph, Superintendent, State Hospital, Scranton, Pa.—Active, 1907.
- *Putney, Rev. R. D. S., Superintendent, St. Luke's Hospital, St. Louis, Mo.—Active, 1923.
- Putts, Miss Mary J., Superintendent, King's Daughters Hospital, Temple, Texas—Active, 1914.
- Pye, Robert J., Metropolitan Hospital, Welfare Island, N. Y.—Associate, 1922.
- *Quackenbush, Miss Helen M., Superintendent of Nurses, Bushwick Hospital, Brooklyn, N. Y.—Active, 1922.
- *Quennell, M.D., Willard L., Superintendent, Highland Park General Hospital, Highland Park, Mich.—Active, 1920.
- *Quimby, R.N., Miss Jennie C., Chambersburg Hospital, Chambersburg, Pa.—Associate, 1917.
- Radford, Miss Anne E., Superintendent, Charlesgate Hospital, Cambridge, Mass.—Active, 1922.
- Rainer, Miss Caroline, Lakewood, Ohio—Active, 1923.
- Randall, Miss Huldah, Superintendent, Cooper Hospital, Camden, N. J.—Active, 1920.
- Randolph, Evan, Trustee, Pennsylvania Hospital, Philadelphia, Pa.—Active, 1923.
- *Ransom, John E., Superintendent, Michael Reese Dispensary, Chicago, Ill.—Active Life, 1916.
- *Ranz, Miss Cordelia, Superintendent, Audrain Hospital, Mexico, Mo.—Active, 1923.
- *Rappleye, M.D., W. C., Superintendent, New Haven Hospital, New Haven, Conn.—Active, 1920.
- Rathers, Paul C. (Address Unknown)—Active, 1922.
- *Rawson, W. W., Superintendent, Thomas D. Dee Memorial Hospital, Ogden, Utah—Active, 1921.
- Read, Chas. O., Trustee, Memorial Hospital, Pawtucket, R. I.—Active, 1914.
- Reardon, Miss Elizabeth A., Titusville, Pa.—Active, 1916.
- *Redfern, M.D., T. C., Superintendent, City Hospital, Winston-Salem, N. C.—Active, 1921.
- Reed, W. H., Manager, People's Hospital, Akron, Ohio—Active, 1921.
- Reeder, M.D., C. L., Chief of Medical Staff, Bristow General Hospital, Bristow, Okla.—Active, 1920.
- *Reeder, Miss Grace A., Executive Secretary, Maternity Hospital, Inc., Minneapolis, Minn.—Active, 1923.
- Reekie, Miss J. R., c/o Victoria Hospital, London, Ont.—Active, 1913.
- Reeks, T. E., Chairman Executive Committee, New Britain General Hospital, New Britain, Conn.—Active, 1922.
- Reese, M.D., G. W., Superintendent and Surgeon in Chief, Treverton, Shamokin and Mount Carmel State Hospital, Shamokin, Pa.—Active, 1922.
- Regula, R.N., Miss Carolina, Superintendent, Union Hospital, Dover, Ohio.—Active, 1923.
- Reid, Miss Agnes H., Superintendent, Mines Hospital, Cobalt, Ont.—Active, 1920.
- *Reid, R.N., Miss Agnes W., Superintendent, Bradley Memorial Hospital, Madison, Wis.—Active, 1921.
- Reilly, Miss Helen T. (Address Unknown)—Active, 1918.
- Reitz, R.N., Miss Sarah H., Mexico, Mo.—Active, 1922.

AMERICAN HOSPITAL ASSOCIATION

- Reser, M.D., Wm. M., Secretary, Executive Committee, St. Elizabeth Hospital, LaFayette, Ind.—Active, 1921.
- Resler, Richard, 41 E. 42nd St., New York City—Associate, 1922.
- *Reynolds, L. G., Superintendent, Methodist Hospital of Southern California, Los Angeles, Calif.—Active, 1923.
- Rhoads, E. Burnell, 2228 W. Tioga St., Philadelphia, Pa.—Associate Life, 1920.
- Rhoads, J. R., 329 Apsley St., Philadelphia, Pa.—Associate Life, 1920.
- Rhodes, Miss Clara, Superintendent, Beatrice Sanitarium, Beatrice, Nebr.—Active, 1918.
- Rice, R.N., Miss Ida B., c/o The Central Registry for Graduate Nurses, 2157 Euclid Avenue, Cleveland, Ohio—Active, 1923.
- Rice, M.D., William O., Assistant Superintendent, Rhode Island Hospital, Providence, R. I.—Active, 1923.
- *Richardson, M.D., D. L., Superintendent, City Hospital, Providence, R. I.—Active, 1910.
- Riddle, Miss Mary M., 47 Gralton St., Newton Center, Mass.—Active, 1905.
- Ripper, Miss Sophie E., Superintendent, Braddock General Hospital, Braddock, Pa.—Active, 1923.
- Risk, M.D., C. A., Trustee, Riverdale Isolation Hospital, Toronto, Canada—Associate, 1922.
- Ritter, Miss Beatrice E. (Address Unknown)—Associate, 1920.
- Roach, M.D., Alfred J., Superintendent, Norfolk County Hospital, South Braintree, Mass.—Active, 1920.
- Robbins, Miss Etta L., Superintendent, Camden Hospital, Camden, S. C.—Active, 1921.
- Robert, Miss Marguerite E., Superintendent, Bath City Hospital, Bath, Maine—Active, 1922.
- *Roberts, R. N., Miss Mary M., Co-editor, American Journal of Nursing, 370 Seventh Ave., New York City—Associate, 1921.
- *Robertson, M. D., Donald M., Superintendent, Carleton General Protestant Hospital, Ottawa, Ont.—Active, 1908.
- Robertson, Thomas K., Superintendent, Ear & Eye Infirmary, New York City—Active, 1909.
- Robinson, Miss Margaret J., Superintendent, Montefiore Hospital, Pittsburgh, Pa.—Active, 1915.
- Robitshek, M.D., E. C., Eitel Hospital, Minneapolis, Minn.—Associate, 1915.
- Roche, Miss Elizabeth F., Assistant Superintendent, Litchfield County Hospital, Winsted, Conn.—Active, 1916.
- Rockefeller, M.D., Willard D., Superintendent, Albany Hospital, Albany, N. Y.—Active, 1922.
- Rogers, M.D., B. J., Medical Director, Pottsville Hospital, Pottsville, Pa.—Active, 1922.
- *Rogers, Miss Margaret, Superintendent, Lafayette Home Hospital, Lafayette, Ind.—Active, 1907.
- *Rogers, Miss Margaret A., Superintendent, Children's Hospital of Michigan, Detroit, Mich.—Active, 1918.
- Rogerson, John J., Assistant Superintendent, Hartford Hospital, Hartford, Conn.—Active, 1918.
- Roloff, Bernard C., Superintendent, Illinois Social Hygiene League, 952 N. Clark St., Chicago, Ill.—Associate, 1921.
- Romana, Sister M., Superintendent, St. Joseph's Hospital, Kansas City, Mo.—Active, 1915.
- Roneche, R.N., Miss E. A., 109 Minnesota Ave., Buffalo, N. Y.—Active, 1921

AMERICAN HOSPITAL ASSOCIATION

- Root, Miss Theodora S., Superintendent, New York Orthopedic Dispensary and Hospital, New York City—Active, 1917.
- Rorke, Miss Ada M., Michigan Mutual Hospital, Detroit, Mich.—Associate, 1916.
- Rose, Mrs. A. Sumner, Managing Editor, The Trained Nurse and Hospital Review, 102 W. Eightieth St., New York City—Associate, 1918.
- Rose, Sister M., Superintendent, Mercy Hospital, Pittsburgh, Pa.—Active, 1923.
- *Rosenthal, Miss Ada R., Superintendent, Hebrew Hospital, Baltimore, Md.—Active, 1920.
- Ross, M.D., David, St. Vincent's Hospital, Indianapolis, Ind.—Active, 1921.
- Ross, R.N., Miss Elizabeth B., Superintendent of Nurses, Victoria Hospital, London, Ont.—Active, 1906.
- Ross, Miss Myrtle B., Superintendent, Emerson Hospital, Boston, Mass.—Active, 1923.
- Ross, M.D., Renwick R., Superintendent, Buffalo General Hospital, Buffalo, N. Y.—Active, 1904.
- Roth, J. E., Trustee, South Side Hospital, Pittsburgh, Pa.—Active, 1923.
- Rothrock, Mrs. Anna Ely, 310 Fairhill Ave., Glenside, Pa.—Active, 1910.
- Rothrock, R.N., Miss Mary A., Superintendent, Clearfield Hospital, Clearfield, Pa.—Active, 1916.
- Rothwell, Miss Katherine, 2036 N. Thirteenth St., Philadelphia, Pa.—Active, 1916.
- *Rottman, R.N., Miss Marion, Principal of Training School, Mt Sinai Hospital, Milwaukee, Wis.—Active, 1921.
- *Rowland, Henry A., Secretary, Department of Public Health, Toronto, Ont.—Active, 1916.
- *Royan, Miss Josephine, Superintendent, Good Samaritan Hospital, Lexington, Ky.—Active, 1913.
- Ruggles, Miss Alice K., Superintendent, Milford Hospital, Milford, Mass.—Active, 1910.
- Ruggles, M.D., Arthur H., Superintendent, Butler Hospital, Providence, R. I.—Active, 1922.
- Runkle, Delmer, Trustee, Samaritan Hospital, Troy, N. Y.—Active, 1923.
- Runstrom, A. H., Twin City Hospital, Ironwood, Mich.—Active, 1921.
- Runyan, R.N., Miss Hazel M., Flower Hospital, Toledo, Ohio.—Active, 1920.
- Ruppert, Jacob, Trustee, Lenox Hill Hospital, New York City—Active, 1923.
- Ruth, Miss Clara L., 1206 Findim Ave., Logan, Philadelphia, Pa.—Active, 1916.
- Ryan, Miss Geraldine M. W., President, Miss Alston's House for Private Patients, New York City—Active, 1920.
- *Saffair, Miss Rosa A., Superintendent, Prospect Heights Hospital and Brooklyn Maternity, Brooklyn, N. Y.—Active, 1918.
- Sampson, M.D., F. E., Chief of Medical Staff, Greater Community Hospital, Creston, Iowa—Active, 1920.
- *Sanders, E. E., Superintendent, Ravenswood Hospital, Chicago, Ill.—Active, 1921.
- Sanders, M.D., St. Elmo, Grace Hospital, Kansas City, Mo.—Active, 1923.
- Sandidge, B. B., Superintendent, Central Dispensary and Emergency Hospital, Washington, D. C.—Active, 1922.
- Sands, Miss M. E., Superintendent, Training School, Toledo Hospital, Toledo, Ohio—Associate, 1916.
- Sanes, M.D., K. I., Western Pennsylvania Hospital, Pittsburgh, Pa.—Associate, 1914.
- Sanger, M.D., Eugene B., Eastern Maine General Hospital, Bangor, Maine—Active, 1922.

AMERICAN HOSPITAL ASSOCIATION

- Sargent, M. D., Ara N., Salem Hospital, Salem, Mass.—Associate, 1914.
- Sattler, Miss Dorothy, Superintendent, Ophthalmic Hospital, Cincinnati, Ohio—Active, 1922.
- *Sauer, M.D., F. N., Roosevelt General Hospital, Milwaukee, Wis.—Active, 1921.
- Sauer, George F., Superintendent, Lenox Hill Hospital, New York City—Active, 1918.
- Saunders, M.D., E. W., Superintendent, Bethesda Hospital, St. Louis, Mo.—Active, 1903.
- Savage, M.D., A. J. Barker, Trustee and Superintendent, Broad Street Hospital, New York City—Active Life, 1920.
- Saylor, Harry C., Children's Homeopathic Hospital, Philadelphia, Pa.—Active, 1923.
- Schaeffer, M. D., C. D., Trustee, Allentown Hospital, Allentown, Pa.—Active, 1914.
- Schafer, E. A., Superintendent, Kern County Tuberculosis Sanatorium, Keene, Calif.—Active, 1923.
- *Schauber, R.N., Miss Mabel M., Assistant Superintendent, Lake County General Hospital, Waukegan, Ill.—Active, 1922.
- *Schill, Miss Anna M., Superintendent, Hurley Hospital, Flint, Mich.—Active, 1912.
- Schirman, M.D., H. A., Schirman Hospital, Portsmouth, Ohio—Active, 1921.
- Schlotman, J. B., Trustee, Harper Hospital, Detroit, Mich.—Active, 1920.
- *Schmidt, Richard E., Vice-President, Grant Hospital, Chicago, Ill.—Active, 1912.
- Schneider, M.D., Louis, Trustee, Essex County Isolation Hospital, Soho, Belleville, N. J.—Active, 1920.
- Schneider, Miss P., Superintendent, J. C. Blair Memorial Hospital, Huntingdon, Pa.—Active, 1918.
- Schneller, M.D., John S., Dean of Obstetrical Department, Sacred Heart Hospital, Allentown, Pa.—Associate, 1923.
- *Schoedinger, G., President, The Children's Hospital, Columbus, Ohio—Active Life, 1923.
- Schreiber, George F., 105 W. Monroe St., Chicago, Ill.—Associate, 1921.
- Schroeder, M.D., J. C., Trustee, Hanover General Hospital, Milwaukee, Wis.—Active, 1921.
- Schroeder, R.N., Miss J. E., Assistant Superintendent, Bethesda Hospital, St. Louis, Mo.—Associate, 1917.
- Schuessler, John H., Treasurer, Lafayette Home Hospital, Lafayette, Ind.—Active, 1923.
- Schute, R.N., Miss C. A., Superintendent, Hillsboro Hospital, Hillsboro, Wis.—Active, 1921.
- Schwab, David, Superintendent, Nathan and Miriam Barnert Hospital, Paterson, N. J.—Active, 1908.
- Schwer, R.N., Miss Mary, Superintendent, McGirk Sanitarium, Phillipsburg, Pa.—Active, 1922.
- *Scott, M.D., A. C., President, Scott and White Hospital, Temple, Texas—Active, 1923.
- Scott, Miss Kathleen, Superintendent, The Sarnia General Hospital, Sarnia, Ont.—Active, 1917.
- Seabrook, M. D., Alice M., Superintendent, Women's Hospital, Philadelphia, Pa.—Active, 1902.
- Search, W. Warren, 1632 John St., Baltimore, Md.—Associate, 1920.
- *Seckinger, Miss L. Winifred, Superintendent, W. A. Foote Memorial Hospital, Jackson, Mich.—Active, 1917.

AMERICAN HOSPITAL ASSOCIATION

- *Seem, M.D., Ralph B., Director, Albert Merritt Billings Hospital, Chicago, Ill.—Active, 1911.
- Selby, Miss Ellen M., Superintendent, Memorial Hospital, Pawtucket, R. I.—Active, 1918.
- Seldomridge, R.N., Miss Bertha M., Superintendent and Directress of Nurses, Lewiston Hospital, Lewiston, Pa.—Active, 1923.
- Sellers, M.D., Robert R., Orwell, Ashtabula County, Ohio.—Active, 1920.
- Semken, M.D., George H., Secretary of Medical Board, New York Skin and Cancer Hospital, New York City—Active, 1921.
- Seraphia, C.S.A., Sister M., Superintendent, St. Agnes Hospital, Fond du Lac, Wis.—Active, 1921.
- Sexton, M.D., Lewis, A., Superintendent, Hartford Hospital, Hartford, Conn.—Active, 1913.
- *Sexton, Miss Winona, Assistant Superintendent, General Hospital, Saranac Lake, N. Y.—Associate, 1918.
- Seymour, M.D., M: M., Commissioner of Public Health, Province of Saskatchewan, Regina, Sask.—Active, 1920.
- Shaefer, M.D., C. R., 20 Stokes Building, Indianapolis, Ind.—Active, 1921.
- Shaffer, Miss Mary J. K., Supervisor, Rush Hospital, Malvern, Chester County, Pa.—Active, 1923.
- Shanks, Miss Emma, Superintendent, Nevada Medical and Surgical Sanitarium, Nevada, Mo.—Active, 1918.
- Shatto, Miss Katherine M., 9 United States Veterans' Bureau, San Francisco, Calif.—Associate, 1909.
- Shaw, Benjamin F., Trustee, Delaware Hospital, Wilmington, Del.—Active, 1916.
- Shaw, Miss Dessa H., Superintendent, City Hospital, Piqua, Ohio—Active, 1915.
- *Shaw, R.N., Miss Elizabeth H., Superintendent, St. Margaret Memorial Hospital, Pittsburgh, Pa.—Active, 1922.
- Shaw, Miss Jennie M., 807 N. Twenty-first Street, Philadelphia, Pa.—Active, 1916.
- Shaw, Miss May, Superintendent, Jeffrey Hale's Hospital, Quebec, Quebec—Active, 1920.
- Shaw, R.N., Miss Roberta, Superintendent, Espey Hospital, Xenia, Ohio—Active, 1923.
- Sheaffer, Miss Susan V., Superintendent, Ellwood City Hospital, Ellwood City, Pa.—Active, 1918.
- *Sheats, George D., Superintendent, Baptist Memorial Hospital, Memphis, Tenn.—Active, 1921.
- Sheldon, Edward W., Trustee, New York Hospital, New York City—Active, 1913.
- Shepard, Miss Ida F., Mary Hitchcock Memorial Hospital, Hanover, N. H.—Active, 1905.
- Shields Miss Mary E., Superintendent, Rockville City Hospital, Rockville, Conn.—Active, 1922.
- Shifferstine, M.D., E. E. Superintendent and Surgeon in Chief, State Hospital of Coaldale, Coaldale, Pa.—Active, 1916.
- Shipley, Miss Stella, Superintendent, Wilson County Hospital, Neodesha, Kansas—Active, 1909.
- Shirieff, W. T., Superintendent, Isolation Hospital, Ottawa, Ont.—Active, 1920.
- Shivers, Miss Annie M., Superintendent, Margaret Wright Hospital Augusta, Ga.—Active, 1912.
- Shoneke, A. J., Mt. Sinai Hospital, New York City—Active, 1921.

AMERICAN HOSPITAL ASSOCIATION

- Shore, R.N., Miss Agnes C., Superintendent, Montgomery Hospital, Norristown, Pa.—Active, 1917.
- Shove, W. Frank, Trustee, Union Hospital, Fall River, Mass.—Active, 1916.
- Shrader, Miss Florence R., Superintendent, Jarman Memorial Hospital, Tuscola, Ill.—Active, 1922.
- Shute, Miss Ida May, Superintendent of Nurses and Assistant Superintendent, Tuberculosis Hospital of Hudson County, Secaucus, N. J.—Active, 1922.
- Shutt, R.N., Miss Mary E., Superintendent of Training School, White Cross Hospital, Columbus, Ohio—Associate, 1922.
- Sihler, H. A., Windsor Hydratic Institute, Cleveland, Ohio—Active, 1921.
- *Simanek, M.D., George F., Medical Director, St. Joseph's Hospital, Omaha, Nebr.—Active, 1923.
- Simon, M.D., S., National Jewish Hospital for Consumptives, Denver, Colo.—Active, 1917.
- Simon, Sister St., St. Vincent's Hospital, Toledo, Ohio—Active, 1921.
- Simpson, Thomas, President, White Plains Hospital, Hartsdale, N. Y.—Active, 1915.
- Sinclair, M.D., John F., Medical Director, Babies' Hospital of Philadelphia, Philadelphia, Pa.—Active, 1923.
- Singer, Mrs. Adolph, Acting President, St. Louis Maternity Hospital, St. Louis, Mo.—Active, 1923.
- Skinner, M.D., J. O., Treasurer, Columbia Hospital for Women, Washington, D. C.—Associate, 1914.
- Slattery, M.D., John R., Superintendent, St. Elizabeth's Hospital, Brighton, Mass.—Active, 1913.
- Sloan, M.D., T. Dwight, Medical Superintendent, Peking Union Medical College Hospital, Peking, China—Active, 1922.
- Smethers, M.D., Archer L., President and Manager, University Sanitarium, Anderson, S. C.—Active, 1922.
- Smiley, J. R., Superintendent, St. Luke's Hospital, Kansas City, Mo.—Active, 1923.
- Smith, R.N., Miss A. B., Superintendent, City Hospital, McKinney, Texas—Active, 1923.
- Smith, Miss Bernetha M., 101 Hudson Street, Columbus, Ohio—Active, 1921.
- Smith, M.D., Charles D., Medical Superintendent, Maine General Hospital, Portland, Maine, Active, 1904.
- Smith, M.D., F.A.C.S. Edward W., Surgeon in Chief, Meriden Hospital, Meriden, Conn.—Active, 1920.
- Smith, R.N., Miss Ella Barnaby, (Address Unknown)—Active, 1921.
- *Smith, Miss Emma Margaret, Superintendent, Homeopathic Hospital, Essex County, Newark, N. J.—Active, 1918.
- Smith, R.N., Miss Florence L., Superintendent, Titusville Hospital, Titusville, Pa.—Active, 1921.
- Smith, M.D., F. R., Superintendent, Winfield Hospital, Winfield, Kansas—Active, 1910.
- *Smith, M.D., Herman, Superintendent, Michael Reese Hospital, Chicago, Ill.—Active, 1920.
- *Smith, H. B., President, Northern Pacific Beneficial Association, St. Paul, Minn.—Active, 1923.
- Smith, Miss Ida C., Superintendent, Children's Hospital, Boston, Mass.—Active, 1918.
- *Smith, John M., Superintendent, Hahnemann Hospital, Philadelphia, Pa.—Active, 1915.
- Smith, R.N., Miss Mary A., Superintendent, Greenville City Hospital, Greenville, S. C.—Active Life, 1924.

AMERICAN HOSPITAL ASSOCIATION

- Smith, R.N., Miss Nina A., Superintendent of Nurses, Robert Packer Hospital, Sayre, Pa.—Associate, 1911.
- Smith, M.D., R. W. Bruce, Parliament Building, Toronto, Ont.—Honorary, 1907.
- Smith, M.D., S. M., Hanover General Hospital, Milwaukee, Wis.—Active, 1921.
- Smith, M.D., Winford H., Director, Johns Hopkins Hospital, Baltimore, Md.—Active, 1906.
- Smylie, R.N., Miss Margaret S., Superintendent, New Samaritan Hospital, Sioux City, Iowa.—Active, 1914.
- *Snively, M.D., Earl H., Medical Director, Newark City Hospital, Newark, N. J.—Active, 1923.
- *Snell, Major Myron W., National Home for Disabled Volunteer Soldiers, National Home, Wis.—Active, 1922.
- Snyder, M.D., E. S., St. Joseph's Hospital, Lancaster, Pa.—Active, 1920.
- Soekland, William, G., Superintendent, The Mary Imogene Bassett Hospital, Inc., Cooperstown, N. Y.—Active, 1923.
- Somers, M.D., George B., Superintendent, Lane Hospital, San Francisco, Calif.—Active, 1912.
- Soto, M.D., Enrique Fernandez, Habana, Cuba—Active, 1920.
- Southworth, Miss Harriet, (Address unknown)—Active, 1911.
- Spalding, M.D., H. O., Superintendent, Wiswall Sanatorium, Inc., Wellesley 81, Mass.—Active, 1916.
- *Spangenberg, M.D., William C., Superintendent and General Manager, Chicago General Hospital, Chicago, Ill.—Active, 1922.
- Sparrow, Miss Caroline E., Superintendent, Delaware Hospital, Wilmington, Del.—Active, 1920.
- *Spelman, M.D., John D., Superintendent, Touro Infirmary of New Orleans, New Orleans, La.—Active, 1923.
- Sperber, R.N., Miss Helen, Superintendent, Egeland Hospital, Sturgeon Bay, Wis.—Active, 1921.
- Spinney, Miss Julia B., Superintendent, Springfield Hospital, Springfield, Vt.—Active, 1920.
- Sponland, Sister Ingeborg, Sister Superior, Lutheran Deaconess Home and Hospital, Chicago, Ill.—Active, 1908.
- Springer, D. W., Superintendent, University Homeopathic Hospital, Ann Arbor, Mich.—Active, 1920.
- Springer, Miss Elizabeth, Superintendent, Huntington County Hospital, Huntington, Ind.—Active, 1922.
- Springer, R.N., Miss Katherine, Superintendent, Monnonite Hospital, Bluffton, Ohio—Active, 1923.
- *Springmyer, Miss Elizabeth, Superintendent, Reid Memorial Hospital, Richmond, Ind.—Active, 1922.
- Spurr, H. Frank, 512 Fifth Ave., New York City—Associate, 1922.
- *Stack, M.D. S. S., Medical Director, Sacred Heart Sanitarium, Milwaukee, Wis.—Active, 1923.
- Steele, M.D., M. F., Superintendent, Hope Methodist Hospital, Fort Wayne, Ind.—Active, 1921.
- Steele, R. D., 510 First National Bank Bldg., Houston, Texas—Associate, 1922.
- Steinbach, Miss Ella M., Box 97, L'Anse, Mich.—Associate, 1914.
- Steinhauer, R.N., Miss Sophia F., Superintendent, Speers Memorial Hospital, Dayton, Ky.—Active, 1922.
- Stemsrud, M.D., A. A., Dawson Surgical Hospital, Dawson, Minn.—Associate, 1916.
- Stephen, Rev. S. A., 80 E. High St., Mt. Gilead, Ohio—Active, 1921.

AMERICAN HOSPITAL ASSOCIATION

- *Stephens, M.D., George F., General Superintendent, Winnipeg, General Hospital, Winnipeg, Man.—Active, 1921.
- Stephenson, R.N., Miss Mary V., Superintendent, Hospital of the University of Pennsylvania, Philadelphia, Pa.—Active, 1922.
- Stetson, M.D., H. G., President, Franklin County Public Hospital, Greenfield, Mass.—Active, 1912.
- *Stevens, Edward F., 9 Park Street, Boston, Mass.—Associate, 1910.
- Stevens, Miss Mildred A., Superintendent, Laconia Hospital, Laconia, N. H.—Active, 1922.
- Stewart, Miss Annabel L., Superintendent, Roxbury Hospital, Boston, Mass.—Active, 1916.
- *Stewart, B. W., Superintendent, Youngstown Hospital Association, Youngstown, Ohio—Active, 1922.
- *Stewart, M.D., Charles E., Assistant Superintendent, Battle Creek Sanitarium, Battle Creek, Mich.—Active, 1920.
- Stewart, Miss Clara B., Jordan Hospital, Plymouth, Mass.—Active, 1922.
- *Stewart, Miss Mary C., Superintendent, Children's Memorial Hospital, Chicago, Ill.—Active, 1920.
- Stiles, Miss Wavie, 3901 Peters Street, Sioux City, Iowa—Active Life, 1914.
- Stillman, M.D., E. G., Rockefeller Institute Hospital, New York City—Active, 1918.
- Stith, M.D., Robert M., Medical Director, Firland Sanatorium, Richmond Highlands, Wash.—Active, 1923.
- Stockwell, Herbert G., 833 Land Title Building, Philadelphia, Pa.—Honorary, 1904.
- *Stoddard, Miss Margaret M., Superintendent, Henry County Soldiers' and Sailors' Memorial Hospital, Mt. Pleasant, Iowa—Active, 1922.
- Stoker, George, Secretary, Municipal Hospitals Department, Winnipeg, Man.—Associate, 1913.
- Stokes, M.D., Lydia Webster, Superintendent, Women's Southern Homeopathic Hospital, Philadelphia, Pa.—Active, 1909.
- Stone, Galen L., President, State Infirmary, Tewksbury, Mass.—Associate, 1922.
- Stone, M.D., George H., Superintendent, Eastern Maine General Hospital, Bangor, Maine—Active, 1913.
- Stowell, Albert C., Trustee, St. Luke's Hospital, Kansas City, Mo.—Active, 1921.
- Straus, Mrs. Roger W., Trustee, Mt. Sinai Hospital, New York City—Active, 1920.
- Strauss, M.D., O. A., Hanover General Hospital, Milwaukee, Wis.—Active, 1921.
- Strayer, Miss Adah B., Superintendent, Wabash Hospital, Wabash, Ind.—Active, 1922.
- *Strayer, C. B., General Manager, Norwalk General Hospital, Norwalk Conn.—Active, 1923.
- Streicher, A. W., Superintendent, Grand View Hospital, La Crosse, Wis.—Active, 1922.
- Struckmeyer, Miss Anna C., Superintendent, King's Daughters' Hospital, Greenville, Miss.—Active, 1915.
- *Stuart, Mrs. Charles, Vice-President, Lafayette Home Hospital, Lafayette, Ind.—Active, 1923.
- Stuart, R.N., Miss Mary C., Superintendent, Martins Ferry Hospital, Martins Ferry, Ohio—Active, 1923.
- Stuart, Robert, Superintendent, Reconstruction Hospital, New York City—Active, 1922.

AMERICAN HOSPITAL ASSOCIATION

- Styer, R.N., Miss Anna L., Superintendent, Maple Avenue Hospital, Du Bois, Pa.—Active, 1921.
- Summersgill, M.D., H. T., c/o Bennington Club, Bennington, Vt.—Active, 1909.
- Superior, Sister, Superintendent, Holy Cross Hospital, Salt Lake City, Utah—Active, 1908.
- *Surbray, Miss Mary E., 1822 E. Ninety-third Street, Cleveland, Ohio—Active, 1911.
- *Sutherland, Miss Myral M., Superintendent, Mary McClellan Hospital, Cambridge, N. Y.—Active, 1911.
- Sutton, Del T., 135 Blaine Avenue, Detroit, Mich.—Honorary, 1899.
- Swarr, Miss M. R., Superintendent, House of the Holy Comforter Hospital, New York City—Active, 1914.
- *Swern, Perry W., 19 South La Salle Street, Chicago, Ill.—Associate, 1920.
- Swezey, M.D., Samuel, Medical Director and Superintendent, National Jewish Hospital for Consumptives, Denver, Colo—Active, 1921.
- Swift, R.N., Miss Caroline M., 35 Mt. Pleasant Ave., Roxbury, Mass.—Active, 1922.
- Switton, M.D., Max, 833 LaFayette Parkway, Chicago, Ill.—Active, 1922.
- Sylvina, Sister, Mt. Carmel Hospital, Columbus, Ohio—Active, 1922.
- *Tall, Anthony, Superintendent, Altoona Hospital, Altoona, Pa.—Active, 1918.
- Tannenbaum, M.D., Simon, Director of the Hadassah Hospitals, Jerusalem, Palestine—Active, 1919.
- *Taubken, H. R., Superintendent, Mansfield General Hospital, Mansfield, Ohio—Active, 1922.
- Taylor, R.N., Miss Anne Adams, Assistant Superintendent, Sewickley Valley Hospital, Sewickley, Pa.—Active, 1922.
- Taylor, Frederick, Superintendent, St. Luke's General Hospital, Ottawa, Ont.—Active, 1920.
- Taylor, Mrs. Katherine G., Superintendent, Taylor Hospital, Ridley Park, Pa.—Active, 1922.
- Taylor, Mrs. Louise F., Trustee, Lafayette Home Hospital, Lafayette, Ind.—Active, 1923.
- Templeton, Miss Nelle I., 57 Line Street, Sharpsville, Pa.—Active, 1914.
- Templeton, Miss Margaret W., Superintendent, Nesbitt West Side Hospital, Wilkes-Barre, Pa.—Active, 1922.
- Templin, M.D., Theodore B., Gary, Ind.—Active, 1921.
- *Test, Daniel D., Superintendent, Pennsylvanian Hospital, Philadelphia, Pa.—Active, 1900.
- Thacker, Miss S. Virginia, Superintendent of Hospital and Training School, Lewis-Gale Hospital, Roanoke, Va.—Active, 1919.
- *Thatcher, Miss Alice, Superintendent, Christ Hospital, Cincinnati, Ohio—Active, 1912.
- Thayer, Mrs. Mary C., Superintendent, Scobey Hospital, Inc., Boston, Mass.—Active, 1922.
- Thomas, M.D., A. C., Superintendent, Foxboro State Hospital, Foxboro, Mass.—Active, 1923.
- Thomas, Miss Hazel A., Superintendent, Amanda Coil Hospital, Mexico, Mo.—Active, 1922.
- *Thomasina, Sister Mary, Mercy Hospital, Baltimore, Md.—Active, 1916.
- *Thomasina, Sister M., Superintendent, St. Francis Hospital, Pittsburgh, Pa.—Active, 1922.
- Thompson, Miss Birdie B., Superintendent, George Washington University Hospital, Washington, D. C.—Active, 1921.
- *Thompson, Miss Louise H., Superintendent, Elliot Community Hospital, Keene, N H.—Active, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Thompson, R.N., Miss Lydia, Superintendent, Saginaw Women's Hospital, Saginaw, Mich.—Active, 1916.
- Thompson, M.D., Nelson W., Assistant Superintendent, Metropolitan Hospital, Welfare Island, N. Y.—Active, 1920.
- *Thomson, M.D., Alec Nicol, Medical Secretary, Committee on Dispensary Development, 15 W. Forty-third St., New York City—Associate, 1920.
- *Thorning, M.D., W. B., Chief of Staff, Houston Clinic, Houston, Texas—Active, 1923.
- Thornton, Miss Janet, New York Committee on Dispensary Development, 15 W. Forty-third St., New York City—Associate, 1920.
- Thrasher, Miss Mary E., (Address unknown)—Active, 1913.
- Thurlow, Miss Josephine E., Superintendent, Cambridge Hospital, Cambridge, Mass.—Active, 1912.
- *Thurston, H. K., Business Manager, Madison General Hospital, Madison, Wis.—Active, 1921.
- Tinkman, Miss Florence L., 117 Walnut St., Gowanda, N. Y.—Associate Life, 1913.
- *Tinsley, Miss Esther J., Superintendent, Pittston Hospital, Pittston, Pa.—Active, 1916.
- Toch, Lucas, 167 West Eighteenth Street, New York City—Active, 1916.
- Toomey, John A., City Hospital, Cleveland, Ohio—Active, 1917.
- Towns, M.D., Charles B., 293 Central Park, West, New York City—Active Life, 1916.
- Townsend, M.D., David, Associate Medical Director and Superintendent, National Soldiers' Home, Johnson City, Tenn.—Active, 1912.
- Tracht, Miss Gail E., Lafayette Home Hospital, Lafayette, Ind.—Active, 1921.
- Trapp, Christian, Trustee, Deaconess Home and Hospital, Buffalo, N. Y.—Active, 1920.
- *Trimble, Louis C., Superintendent, New York Post-Graduate Medical School and Hospital, New York City—Active, 1922.
- Trout, M.D., Hugh A., Chief Surgeon, Jefferson Surgical Hospital, Roanoke, Va.—Associate, 1910.
- Truesdale, M.D., Philomom E., Trustee P. E. Truesdale Hospital, Fall River, Mass.—Active, 1909.
- Trull, M.D., J. Frank, Trull Hospital, Biddeford, Maine—Active, 1908.
- Turnbull, Miss Jessie J., Superintendent, Elizabeth Steel Magee Hospital, Pittsburgh, Pa.—Active, 1922.
- Turner, R.N., Miss Bessie W., Yanceyville, N. C.—Associate, 1921.
- Turner, M.D., Joseph, Second Assistant Director, Mt. Sinai Hospital, New York City—Active, 1922.
- Tye, Miss Menia S., R. D. No. 2, Box 850, Los Angeles, Calif.—Active, 1912.
- Tyler, Miss M. Irene, Flower Hospital, New York City—Associate, 1922.
- Tyson, Mrs. Russell, 20 E. Goethe St., Chicago, Ill.—Active, 1909.
- Ubil, Miss Katherine S., Superintendent, J. Lewis Crozer Homeopathic Hospital, Chester, Pa.—Active, 1911.
- *Ullman, Leo, Trustee, Mt. Sinai Hospital, Milwaukee, Wis.—Active, 1920.
- Upham, Miss Bessie M., Superintendent, Huntington Hospital, Huntington, L. I., New York—Active, 1921.
- Ursula, Sister M., Acting Superior, Rose-Mary Home, Cleveland, Ohio—Active, 1922.
- Utes, Miss Marion, Willard Parker Hospital, New York City—Active, 1914.
- Valencia, Mother, Superintendent, St. Francis Hospital, Hartford, Conn.—Active, 1908.
- Van Allen, M.D., Dorothy, Woman's Hospital of Philadelphia, Philadelphia, Pa.—Active, 1923.
- VanderVeer, M.D., Albert, Albany Hospital, Albany, N. Y.—Active, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Vander Water, Miss Carrie P., 94 West Webster Avenue, Muskegon, Mich.—Active, 1918.
- Van Housen, M.D., Bertha, Women and Children's Hospital, Chicago, Ill.—Associate, 1915.
- Van Nappen, M.D., D. A., Zwitman, Niles Sanatorium, Niles, Mich.—Associate, 1921.
- *Van Norman, M.D., K. H., Charles T Miller Hospital, St. Paul, Minn.—Active, 1912.
- Van Pelt, Miss Irene V. B., Superintendent of Nurses, Worcester City Hospital, Worcester, Mass.—Associate, 1916.
- Van Ravensway, M.D., A., St. Joseph's Hospital, Boonville, Mo.—Active, 1922.
- Van Slyke, Karl L., Saginaw General Hospital, Saginaw, Mich.—Active, 1923.
- Van Vort, Miss Rose Z., c/o St. Elizabeth's Hospital, Richmond, Va.—Active, 1907.
- Vaughn, M.D., J. G., Associate Secretary for Medical Work, Methodist Board of Foreign Mission, New York City—Active, 1921.
- *Venner, Miss Ida B., Superintendent, Passavant Memorial Hospital, Jacksonville, Ill.—Active, 1911.
- *Vermillion, Rev. H. F., Superintendent, Southern Baptist Sanatorium, El Paso, Texas—Active, 1923.
- Vernon, R.N., Miss Emma, Superintendent, Camden-Clark Hospital, Parkersburg, W. Va.—Active, 1920.
- Viehdofer, Miss Alma M., Superintendent, Allentown Hospital, Allentown, Pa.—Active, 1914.
- *Vogler, Miss Anna K., Superintendent, Flower Hospital, Toledo, Ohio—Active, 1922.
- Voje, M.D., J. H., Medical Director, Emeritus, Toren Restoration Hospital, Oconomowoc, Wis.—Active, 1921.
- Wade, Mrs. W. W., Trustee, Hospital for Women, Woburn, Mass.—Active, 1922.
- Wadley, Miss Mary E., Social Service Department, Bellevue and Allied Hospitals, New York City—Associate, 1918.
- Waldheim, Aaron, President, Jewish Hospital, St. Louis, Mo.—Active, 1916.
- Walker, M.D., Eugene, Walher Building, Hamilton, Bermuda—Associate, 1914.
- Walker, Hiram, (Address unknown)—Active, 1914.
- Wallace, R.N., Miss Margaret A., Superintendent, Passaic General Hospital, Passaic, N. J.—Active, 1909.
- Wallace, Mrs. Mary P., Superintendent, Elk County General Hospital, Ridgway, Pa.—Active, 1922.
- Wallace, William, Trustee, Hahnemann Hospital, Philadelphia, Pa.—Active, 1923.
- *Wallerich, Major G. W., V. Mueller & Company, 1771 Ogden Ave., Chicago, Ill.—Associate, 1916.
- Walsh, M.D., William H., Consulting Director, Vincente D'Antoni Memorial Hospital, Ceiba, Spanish Honduras, C. A.—Active, 1912.
- Walters, M.D., John J., Medical Superintendent, Kitchener and Waterton General Hospital, Kitchener, Ont.—Active, 1922.
- *Walthall, Mrs. T. J., Superintendent, Physicians' and Surgeons' Hospital, San Antonio, Texas—Active, 1923.
- Ward, J. F., Superintendent, Memphis General Hospital, Memphis, Tenn.—Active, 1913.
- *Ward, Miss Maud, Superintendent of Nurses, Michigan State Sanatorium, Howell, Mich.—Associate, 1917.

AMERICAN HOSPITAL ASSOCIATION

- Wardwell, Allen, President, Park Hospital, New York City—Active, 1914.
- Ware, Charles Eliot, Trustee, Burbank Hospital, Fitchburg, Mass.—Active, 1915.
- *Warfield, Capt. H. H., Superintendent, Carson C. Peck Memorial Hospital, Brooklyn, N. Y.—Active Life, 1916.
- *Warner, M.D., A. R., Executive Secretary, American Hospital Association, Chicago, Ill.—Active Life, 1912.
- *Warren, M.D., Harry C., Superintendent, California Sanatorium, Belmont, Calif.—Active, 1923.
- Washburn, M.D., F. A., Director, Massachusetts General Hospital, Boston, Mass.—Active, 1904.
- *Washburne, Miss Ida, Superintendent, Lawrence General Hospital, Lawrence, Mass.—Active, 1908.
- Waters, Mrs. Dudley E., Trustee, Blodgett Memorial Hospital, Grand Rapids, Mich.—Active, 1921.
- *Watson, Bertram A., Room 219, 136 W. Lake St., Chicago, Ill.—Associate, 1921.
- *Watson, R.N., Miss Mary, Superintendent and Superintendent of Nurses, Grant Hospital of Chicago, Chicago, Ill.—Active, 1923.
- Watson, Robert, Trustee, Highland Hospital, Rochester, N. Y.—Active, 1921.
- *Watson, Roy, Assistant General Manager, the Kahler Corporation Rochester, Minn.—Associate, 1921.
- Watson, William B., Trustee, Essex County Hospital, Belleville, N. J.—Active, 1918.
- Watterson, M.D., W. H., U. S. Veterans' Hospital No. 76, Maywood, Ill.—Associate, 1914.
- Wayson, George W., 4652 Woodlawn Ave., Chicago, Ill.—Active, 1919.
- *Webb, Rev. Charles Henry, Superintendent, St. John's Hospital, Brooklyn, N. Y.—Active, 1922.
- Webb, Lewis, Superintendent, St. Luke's Hospital, Newburgh, N. Y.—Active, 1922.
- Webb, Mrs. Mary E., Trustee, Women's Southern Homeopathic Hospital, Philadelphia, Pa.—Associate, 1923.
- Weber, Rev. Fred, Superintendent, German Evangelical Deaconess Hospital, Chicago, Ill.—Active, 1917.
- *Weber, M.D., George T., President, Olney Sanatorium, Olney, Ill.—Active, 1912.
- *Weber, Joseph J., Editor, Modern Hospital Publishing Co., Chicago, Ill.—Active, 1915.
- Weber, Miss Katharina, Superintendent, Olney Sanitarium, Olney, Ill.—Associate, 1914.
- Weber, Miss Minnie R., Assistant Superintendent, Olney Sanitarium, Olney, Ill.—Associate, 1916.
- Webster, Mrs. Emma Speakman, President, Woman's Southern Homeopathic Hospital, Philadelphia, Pa.—Associate, 1923.
- *Webster, H. E., Superintendent, Royal Victoria Hospital, Montreal, Quebec—Active Life, 1904.
- Webster, John W., Vice-President, Lakeview Hospital, Danville, Ill.—Associate, 1920.
- Weis, M.D., Joseph D., Touro Infirmary and Charity Hospital, New Orleans, La.—Associate, 1914.
- Weiss, M.D., E. A., Mercy Hospital, Pittsburgh, Pa.—Associate, 1916.
- Welch, Miss Katharine C., Newton Hospital, Newton Lower Falls, Mass.—Associate, 1922.
- Weld, Miss Marion E., Superintendent of Nurses, Eastern Maine General Hospital, Bangor, Maine—Associate, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Welles, M.D., Edward S., General Hospital of Saranac Lake, Saranac Lake, N. Y.—Active, 1921.
- Wells, M.D., C. E., Assistant Director, Massachusetts General Hospital, Bosotn, Mass.—Active, 1914.
- Wells, Donald J., Flower Hospital, New York City—Associate, 1922.
- Wentz, R.N., Miss Reba, Superintendent of Nurses, Winona General Hospital, Winona, Minn.—Associate, 1923.
- West, Miss Frances P., Superintendent, Beverly Hospital, Beverly, Mass.—Active, 1916.
- West, Miss Roberta M., Secretary and Treasurer, Pennsylvania State Board of Examiners for the Registration of Nurses, Oak Lane, Philadelphia, Pa.—Associate, 1914.
- *Westervelt, M.D., Marvin Z., Superintendent, Staten Island Hospital, Staten Island, N. Y.—Active, 1922.
- Wetherill, M.D., Richard B., St. Elizabeth's Hospital, LaFayette, Ind.—Active, 1921.
- Wetzel, Miss Mozelle, Superintendent, Marietta Hospital Association, Marietta, Ohio—Associate, 1922.
- Whamond, M.D., A. A., President, Robert Burns Hospital, Chicago, Ill.—Active, 1923.
- *Wheeler, M.D., F.A.C.S., B. B., Surgeon in Charge, King's Daughters' General Hospital, Beckley, W. Va.—Active, 1923.
- Wheeling, M.D., W. S., Medical Director, Windber Hospital Association, Windber, Pa.—Active, 1922.
- White, M.D., Arthur J., Superintendent, Boston Consumptive Hospital, Mattapan, Mass.—Active, 1916.
- *White, Mrs. Julia, Superintendent, Glenville Hospital, Cleveland, Ohio—Active, 1921.
- White, R.N., Mrs. Laura Fell, Superintendent, Goshen Hospital, Goshen, Ind.—Active, 1922.
- *White, Miss Mary, State Hospital, Raleigh, N. C.—Associate, 1921.
- *White, Miss Regine, Superintendent, Marquette University Dispensary, Milwaukee, Wis.—Active, 1911.
- Whiting, M.D., A. D., Medical Director, Germantown Hospital, Philadelphia, Pa.—Active, 1916.
- Whitney, Miss Mary L., Superintendent, Ware Hospital, Ware, Mass.—Active, 1912.
- Whiton, Miss Lydia A., Superintendent, Meadville City Hospital, Meadville, Pa.—Active, 1918.
- Whittaker, R.N., Miss Annie J., Superintendent, Sparks Memorial Hospital, Fort Smith, Ark.—Active, 1913.
- Wildey, R.N., Miss Harriette E., 165 Academy St., South Orange, N. J.—Active, 1923.
- Wile, Julius M., Trustee, Rochester General Hospital, Rochester N. Y.—Active, 1909.
- Wiley, M.D., Frank S., Chief of Staff, St. Agnes Hospital, Fond du Lac, Wis.—Active, 1920.
- Wiley, William J., Superintendent, Masonic Home, Utica, N. Y.—Active, 1922.
- Wilfreda, R.N., Sister M., Superintendent, Providence Hospital, Sandusky, Ohio—Active, 1923.
- *Wilkes, M.D., B. A., Superintendent, Missouri Baptist Sanitarium, St. Louis, Mo.—Active, 1919.

AMERICAN HOSPITAL ASSOCIATION

- Wilkins, M.D., C. D., Superintendent, Ohio Valley General Hospital, Wheeling, W. Va.—Active, 1908.
- *Williams, Miss Elizabeth, Superintendent, Warren City Hospital, Warren, Ohio—Active, 1921.
- Williams, M.D., Howard Crosby, Medical Superintendent, Sailors' Snug Harbor, New Brighton, Staten Island, N. Y.—Active, 1918.
- Williams, M.D., Irving D., Superintendent, Towns Hospital, New York City, Active, 1915.
- Williams, R.N., Miss Olive A., Superintendent, Highland Park Hospital Association, Highland Park, Ill.—Active, 1923.
- Williamson, Miss Annie A., Superintendent of Nurses, California Lutheran Hospital, Los Angeles, Calif.—Associate, 1914.
- *Willis, Miss Edith, Superintendent, Good Samaritan Hospital, Vincennes, Ind.—Active, 1922.
- Wilsey, R.N., Miss Margaret M., Superintendent, Dr. Mills Private Hospital, Morristown, N. J.—Active, 1920.
- *Wilson, Miss E. E., Superintendent, Jewish Hospital of St. Louis, St. Louis, Mo.—Active, 1922.
- Wilson, M.D., Ed. W., Assistant Superintendent, Boston City Hospital, Boston, Mass.—Active, 1913.
- *Wilson, George W., Superintendent, Hamot Hospital, Erie, Pa.—Active, 1914.
- Wilson, Miss Irene, Lawrence and Memorial Associated Hospital, New London, Conn.—Associate, 1917.
- Wilson, M.D., Lucius R., Assistant Superintendent, Barnes Hospital, St. Louis, Mo.—Active, 1922.
- Wilson, Miss Mabel Rogers, Social Service Department, Children's Hospital, Boston, Mass.—Associate, 1918.
- Wilson, Miss Margaret S., Directress of Nurses, New York Post-Graduate Medical School and Hospital, New York City—Associate, 1923.
- Wilson, Miss Margaret S., Superintendent, Orthopedic Hospital, Philadelphia, Pa—Active, 1905.
- Wilson, Miss Pearl, Superintendent, Sabetha Hospital, Sabetha, Kansas.—Active, 1913.
- Wilson, M.D., Robert J., Director of Hospitals, Department of Health, New York City—Active, 1907.
- *Wing, Frank E., Director, Boston Dispensary, Boston, Mass.—Active, 1922.
- Winter, M.D., John S., Trustee, Liberal Hospital, Liberal, Kans.—Associate, 1922.
- *Wipperman, R.N., Miss Helen S., Superintendent, Mt. Sinai Hospital, Milwaukee, Wis.—Active, 1914.
- *Wipperman, M.D., P. W., Superintendent, Decatur and Macon County Hospital, Decatur, Ill.—Active, 1923.
- Wise, Miss Helen V., Superintendent, Peninsula General Hospital, Salisbury, Md.—Associate, 1918.
- *Wolbach, Miss Flora Elsie, Superintendent, Salem City Hospital, Salem, Ohio—Active, 1923.
- Wolcott, Miss Grace L., Superintendent, Brooks Memorial Hospital, Dunkirk, N. Y.—Active, 1916.
- Wollenberg, C. M., Superintendent, City and County Relief Home for the Aged and Infirm, San Francisco, Calif.—Active, 1917.
- *Wood, Miss Evelyn, Executive Secretary, Central Council for Nursing Education, Chicago, Ill.—Associate, 1923.

AMERICAN HOSPITAL ASSOCIATION

- Wood, R.N., Miss Helen B., Superintendent, Proctor Hospital, Proctor, Vt.—Active, 1916.
- Woodbury, M.D., W. E., Director, Fifth Avenue Hospital, New York City—Active, 1911.
- Wooddell, F. L., Superintendent, Research Hospital, Kansas City Mo.—Active, 1914.
- *Woodring, Miss Ruth S., Superintendent, Aultman Memorial Hospital, Canton, Ohio—Active, 1923.
- Woodruff, Rolin S., Trustee, Grace Hospital, New Haven, Conn.—Active, 1918.
- Woods, Chester C., 217½ N. Christina St., Sarnia, Ont.—Associate, 1923.
- *Woods, M.D., C. S., Superintendent, St. Luke's Hospital, Cleveland, Ohio—Active, 1916.
- Woods, Miss Mabel O., Superintendent, Methodist State Hospital, Mitchell, S. D.—Active, 1923.
- Woodward, Miss Viola V., Superintendent, Jane M. Case Hospital, Delaware, Ohio—Active, 1921.
- Woody, M.D., Melver Baylor Hospital, Dallas, Texas—Active, 1921.
- Wootton, Miss Nina E., Woman's Hospital, Nashville, Tenn.—Active, 1920.
- Wordell, Charles A., Superintendent, St. Luke's Hospital, Denver, Colo.—Active, 1921.
- Workman, Mrs. C. R., 1001 N. Sixteenth St., Fort Smith, Ark.—Active, 1920.
- Wright, Miss Elizabeth N., 21 Bruce Dale Ave., West, Upper Hamilton, Ont.—Active, 1912.
- *Wright, Henry C., Trustee, Bellevue Hospital, New York City—Active, 1920.
- *Wright, Howell, Executive Secretary, Cleveland Hospital Council, Cleveland, Ohio—Active, 1913.
- Wrinch, M.D., Horace C., Superintendent, Hazelton Hospital, Hazelton, B. C.—Active, 1909.
- *Wyland, Miss Hulda M., Superintendent, Robinwood Hospital, Toledo, Ohio—Active, 1923.
- Wylie, R.N., Miss Alison, Director, Social Service Bureau, Jersey City Hospital, Jersey City, N. J.—Associate, 1922.
- Xavier, Sister M., Superintendent, St. Joseph's Hospital, Reading Pa.—Active, 1916.
- *Yager, R.N., Miss Mary E., Superintendent, Maternity and Children's Hospital, Toledo, Ohio—Active, 1919.
- *Yearick, H. G., Superintendent, Homeopathic Hospital, Pittsburgh, Pa.—Active, 1919.
- Yingst, Miss Edith E., R. D. No. 3, Middletown, Pa.—Active, 1916.
- Young, M.D., Charles H., Superintendent, Hospital of the Good Shepherd, Syracuse, N. Y.—Active, 1908.
- *Young, M.D., C. O., President and Superintendent, Washington Park Hospital, Chicago, Ill.—Active, 1918.
- Young, Miss Lulu M., Nicholls' Memorial Hospital, Battle Creek, Mich.—Associate, 1921.
- Younglove, Miss Anna K., R. F. D. No. 2, Lorain, Ohio—Active, 1914.
- Zarlengo, Miss Mary C., Kinney and Knestrick Hospital, Wooster, Ohio—Active, 1921.
- Zinser, Katherine E., Danbury Hospital, Danbury, Conn.—Associate, 1922.
- Zulauf, M.D., G. Walter, Superintendent, Allegheny General Hospital, Pittsburgh, Pa.—Active, 1915.
- Zulich, Thomas R., Superintendent, Paterson General Hospital, Paterson, N. J.—Active, 1918.

AMERICAN HOSPITAL ASSOCIATION

HONORARY MEMBERS

Darrach, Charles G., 5825 Willows Ave., Philadelphia, Pa.
Hill, Robert W., Capitol Building, Albany, N. Y.
Kirkbride, Franklin B., 7 Wall Street, New York City.
Lodge, Hon. Frank T., Detroit, Mich.
Mackintosh, M.B., M.V., O.M., Donald J., Superintendent, Western Infirmary,
Glasgow, Scotland.
Mosher, M.D., J. Montgomery, 170 Washington Ave., Albany, N. Y.
Smith, M.D., R. W. Bruce, Parliament Building, Toronto, Ont.
Stockwell, Mr. Herbert G., 833 Land Title Building, Philadelphia, Pa.
Sutton, Del T., 135 Blaine Avenue, Detroit, Mich.

EXPOSITION OF HOSPITAL BUILDING MATERIALS, EQUIPMENT AND SUPPLIES

EXHIBITORS PRACTICALLY GUARANTEED BY THE ASSOCIATION

The Trustees of the Association have again this year passed the resolution which was the foundation of the unusual spirit and action of last year. It also increased the attendance.

Resolved, That the Executive Secretary be and hereby is authorized and instructed, whenever so requested by any hospital, to undertake the settlement and adjustment of any question arising from the purchase during the Conference of any article from any exhibitor at the 1923 Conference of the Association and to act likewise for any Institutional Member regarding any purchase from an exhibitor at this Conference made during the period between the 1923 and 1924 Conferences, the object being to assure to hospitals, and particularly to Institutional Members, satisfactory results from dealing with those who are permitted to exhibit at the Association meetings.

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Paul Esselborn, Cincinnati (Century Machine Company), Vice-Chairman.

Edward Johnson, New York City (Meinecke & Co.), Secretary and Treasurer.

J. E. Hall, Erie, Pa. (American Sterilizer Company).

H. L. Kaufmann, Boston (H. L. Kaufmann & Co.).

J. N. Myers, New York City (The MacMillan Company).

Sherman J. Sexton, Chicago (John Sexton & Co.).

L. C. Walker, New York City (H. W. Baker Linen Company).

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Acme International X-Ray Company, 341 W. Chicago Ave., Chicago, Ill., X-Ray Equipment.

Albatross Metal Furniture Company, Portland, Ore., Hospital and Physicians' Requisites.

Altro Manufacturing Company, 1157 Southern Blvd., New York, N. Y., Garments.

Aluminum Cooking Utensil Company, New Kensington, Pa., Aluminum Cooking Utensils.

American Association of Hospital Social Service Workers, New York City.

American Hospital Supply Company, 136 W. Lake St., Chicago, Ill., Hospital Supplies.

American Ironing Machine Company, 530, 168 N. Michigan Ave., Chicago, Ill., Simplex Ironer.

American Journal of Nursing, 19 W. Main St., Rochester, N. Y., Magazine.

American Laundry Machine Company, Norwood Station, Cincinnati, Ohio, Cascade Washer.

American Library Association, 78 E. Washington St., Chicago, Ill., Educational.

American Medical Association, 535 N. Dearborn St., Chicago, Ill., Educational.

AMERICAN HOSPITAL ASSOCIATION

- American Occupational Therapy Association, New York, N. Y., Educational.
- American Sterilizer Company, Erie, Pa. (see E. H. Karrer Company), Sterilizers.
- Applegate Chemical Company, 5632 Harper Ave., Chicago, Ill., Indelible Ink, Linen Marker.
- A. W. Arensen & Co., 232 S. Franklin St., Chicago, Ill., Cotton, Linen and Wool Fabrics.
- Armstrong Cork Company, Lancaster, Pa., Flooring.
- E. A. Armstrong Impervo Company, Watertown 72, Mass., Sheeting and Sheets.
- Bacteriological Laboratories of G. H. Sherman, M. D., 14600 S. Jefferson Ave., Detroit, Mich., Vaccines.
- Baker Linen Company, H. W., 41 Worth St., New York, N. Y., Linens.
- Becton, Dickinson Company, Rutherford, N. J., B. D. Hospital Thermometers, Syringes, Needles.
- Bernat Company, Emile, Boston, Mass., Handicraft Yarns and Dyes.
- Betz Company, Frank S., Druggists, Surgical Dental and Veterinary Specialties.
- Bonded Floors Company, First National Bank Bldg., Detroit, Mich., Floor Covering.
- Buildings: Construction, Equipment and Maintenance, Committee on, American Hospital Association.
- Burdick Cabinet Company, Milton, Wis., Scientific Equipment.
- California Peach and Fig Growers, Fresno, Cal., Canned and Preserved Fruit.
- Canned Goods, Committee on, American Hospital Association.
- Century Machine Company, Cincinnati, Ohio, Mixer.
- Chicago Grain Products Company, 139 N. Clark St., Chicago, Ill., Alcohol and Alcohol Products.
- Cleaning, Committee on, American Hospital Association.
- Clark Linen Company, 30 E. Randolph St., Chicago, Ill., Linen.
- Clark Company, W. N., 333 Hollenbeck, Rochester N. Y., Fruits (Canned and Dried).
- Clinical and Scientific Equipment and Supplies, Committee on, American Hospital Association.
- Coast Products Company, St. Louis, Mo., Canned, Dried and Preserved Fruits.
- Colonial Hospital Supply Company, 31 E. Randolph St., Chicago, Ill., Surgeons' Gloves, etc.
- Colson Company, Elyria, Ohio, Invalids' Wheel Chairs.
- Colt's Patent Fire Arms Manufacturing Company, Hartford, Conn., Autosan Dishwasher.
- Connecticut Telephone & Electric Company Meriden, Conn., Interior Telephone and Signal Systems.
- Converse & Co., 88 Worth St., New York City, Textiles and Waterproof Sheeting.
- Crane Company, 836 S. Michigan Ave., Chicago, Ill., Hospital Fixtures.
- Crescent Washing Machine Company, New Rochelle, N. Y. Glass and Dish Washer.
- Deknatel & Sons Inc., J. A., Wythe Ave. at Heyward St., Brooklyn, N. Y., Glass Headed Notion Specialties, Bouquet Pins, Buttons. Identification Necklaces.
- Dennison Manufacturing Company, Framingham, Mass., Tag Makers and Paper Novelties.
- Denoyer Geppert Company, 916 Grace St., Chicago, Ill., Anatomical Models, Charts, Manikins, Stereopticons, Slides, Skeletons.
- Archibald W. Diack, 49 W. Larned St., Detroit, Mich., Sterilizer Controls.

AMERICAN HOSPITAL ASSOCIATION

- Dietary Administration and Therapy, Hospital Dietetic Council, Chicago, Ill., Booklet.
- Dispensary Development, Committee on, New York City, American Hospital Association.
- Dougherty & Co., H. D., 17th at Indiana Ave., Philadelphia, Pa., Faultless Bedding.
- Drinkwater Company, 389 Rider Ave., New York City, Food Service Equipment, Trucks, Cabinets, Containers.
- Fischer & Co., H. G., 2335 Wabansia Ave., Chicago, Ill., X-Ray Apparatus.
- Foods and Equipment for Food Service, Committee on, American Hospital Association.
- J. B. Ford Company, Wyandotte, Mich., Wyandotte Yellow Hoop, Wyandotte Detergent.
- The Fritz-Cross Company, St. Cloud, Minn., Pathological Tissue Cabinet, Hospital Records and Blank Forms.
- Gauze Renovation, Committee on, American Hospital Association.
- General Furnishings and Supplies, Committee on, American Hospital Association.
- Genesee Pure Food Company, LeRoy, N. Y., Jell-O.
- Goder Incinerator Corporation, 320 E. North Water St., Chicago, Ill., Incinerator.
- Goldsmith, Lowenfels & Co., 32 Cooper Square, New York City, Blankets, Sheets, Pillow Cases, Curtains.
- Grand Rapids Fibre Cord Company, Grand Rapids, Mich., Art Fibre.
- Green Oil Soap Company, 166 N. Curtin St., Chicago, Ill., Soaps, Kinney Soap, Water Mixer.
- Edwin F. Guth & Co., Jefferson and Washington Aves., St. Louis, Mo., Lighting Fixtures.
- Frank A. Hall & Sons, 120 Baxter St., New York City, Hospital Beds and Bedding.
- J. L. Hammett Company, Kendall Square, Cambridge, Mass., School Supplies, Occupational Therapy Supplies, Looms, Weaving Material and Basketry Material.
- The Heidbrink Company, 420 S. Sixth St., Minneapolis, Minn., Gas Machines.
- Hobart Manufacturing Company, 48-68 Penn Ave., Troy, Ohio, Electric Mixer.
- Holtzer-Cabot Electrical Company, 1104 Union Trust Bldg., Boston (19), Mass., Hospital Signaling Systems.
- Horlick's Malted Milk, Racine, Wis., Malted Milk.
- Hospital Buyer, 4739 Ravenswood Ave., Chicago, Ill., "Hospital Buyer."
- Hospital Import Company, 21-23 W. 38th St., New York City, Hospital Supplies.
- Hospital Library and Service Bureau, 22 E. Ontario St., Chicago, Ill., Educational.
- Hospital Management, 537 S. Dearborn St., Chicago, Ill., "Hospital Management."
- Hospital Progress, 610 Sycamore St., Milwaukee, Wis., "Hospital Progress."
- Hospital Social Service, 19 72nd St., New York City, Magazine.
- Hospital Specialty Company, 12 Melick Court, Lincoln, Neb., Thermos Irrigating Can.
- Hospital Standard Publishing Company, 31 S. Howard St., Baltimore, Md., Case Records, Charts, etc.
- Hospital Supply Company and The Watters Laboratory, 155 E. 23rd St., New York City, Hospital and Surgical Equipment.
- Hume & Endres, Chilton, Wis., E-Z Lift Hospital Beds.
- Hygienic Fibre Company, 227 Fulton St., New York City, Gauze.

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- Icy-Hot Bottle Company, Cincinnati, Ohio, Icy-Hot Bottles.
 Insulin Treatment, Demonstration of, American Hospital Association.
 International Nickel Company, 67 Wall St., New York, N. Y., Monel Metal Products.
 Johns-Manville, Inc., Madison and 41st St., New York City, Quieting Treatment for Hospitals.
 Johnson Ventilight Company, 732 Federal St., Chicago, Ill., Phototherapy Ventilights.
 Karrer, E. H., 246 W. Water St., Milwaukee, Wis. (see American Sterilizer Company), Hospital Supplies.
 Henry L. Kaufman, 15 School St., Boston, Mass., Rubber Sheetings.
 Keever Starch Company, Columbus, Ohio.
 Knox Gelatine Company, Chas. R., Johnstown, N. Y., Gelatine.
 Knox Products Company, Imperial Power Bldg., Pittsburgh, Pa., Klean Kut Butter Server and Other Products.
 Kny-Scheerer Corporation, 56 W. 23rd St., New York City, Surgical Instruments, Furniture, Sterilizing Apparatus.
 Lakeside Manufacturing Company, Madison, Wis., Dishwasher.
 Lane & Bros., W. T., Poughkeepsie, N. Y., Hospital and Laundry Baskets and Trucks.
 Laundry Equipment and Supplies, Committee on, American Hospital Association.
 Lewis Manufacturing Company, Walpole, Mass., Absorbent Gauze and Cotton.
 Samuel Lewis, 71 Barclay St., New York City, Janitors' Supplies, Paper Supplies.
 J. B. Lippincott Company, 227 S. Sixth St., Philadelphia, Pa., Books.
 Lyons Sanitary Urn Company, 235 E. 44th St., New York City, Liquid Dispensers, Milk Urns, Cream Urns.
 Macbeth Daylighting Company, 227 W. 17th St., New York City, Apparatus for the Scientific Production of Daylight.
 MacGregor Instrument Company, Boston, Mass., Instruments, Splint Materials, etc.
 MacMillan Company, 64 Fifth Ave., New York City, Books.
 E. W. Marvin Company, Troy, N. Y., Linen and Cotton Articles of Clothing.
 Massillon Rubber Company, Massillon, Ohio, Seamless Rubber Goods.
 Walter H. Mayer & Co., 226 W. Adams St., Chicago, Ill., Towels and Linens.
 Meinecke & Co., 66 Park Pl., New York City, Rubber Goods, Enameled Ware, Surgical Supplies.
 Midland Chemical Laboratories, Inc., Dubuque, Iowa, Chemicals.
 Mid-Western Soap Products Company, Milwaukee, Wis., Soaps in the Will Ross Booths.
 Ernest Monnier, Inc., 127 Federal St., Boston, Mass., Rubber Goods and Chemists' Glassware.
 Modern Hospital Publishing Company, 22 E. Ontario St., Chicago, Ill., Plans.
 Morris Hospital Supply Company, 112-114 E. 19th St., New York, N. Y., Hospital Supplies.
 Morse & Burt, Inc., Flushing and Carlton Aves., Brooklyn, N. Y., Shoes.
 Mott Iron Works, J. L., Trenton, N. J., Plumbing and Hydrotherapeutic Equipment.
 National Child Welfare Association, 70 Fifth Ave., New York City, Educational.
 National Hospital Day Committee, Educational.
 J. A. Nystrom & Co., 2251 Calumet Ave., Chicago, Ill., Charts.
 Out-Patient Committee, American Hospital Association.
 Palmolive Company, Milwaukee, Wis., Soap.

AMERICAN HOSPITAL ASSOCIATION

- Paragon Dishwashing Syndicate, Inc., 14-16 W. Bennett St., Buffalo, N. Y., Domestic and Institutional Dishwashers.
- Permutit Company, 440 Fourth Ave., New York City, Permutit Water Softener.
- Pfaudler Company, Rochester, N. Y., Glass Lined Steel Linen Chute.
- Physicians' Record Company, 509 S. Dearborn St., Chicago, Ill., Records.
- Pick & Co., Albert, 220 W. Randolph St., Chicago, Ill., China Glass and Silverware.
- Prosperity Company, Inc., Syracuse, N. Y., Presses.
- Randles Manufacturing Company, Ogdensburg, N. Y., Nurses' Uniforms.
- Raymer Hardware Company, St. Paul, Minn., Rayco Hospital Hardware.
- Read Machinery Company, York, Pa., Speed Mixing and Kitchen Machines.
- Will Ross, 432 Broadway, Milwaukee, Wis., Paper Napkins, Table Covering, etc.
- Safety Anæsthesia Apparatus Concern, 1652 Ogden Ave., Chicago, Ill., Safety Gas Oxygen.
- Sanitary Equipment Company, Battle Creek, Mich., Therapeutic Apparatus.
- W. B. Saunders Company, Philadelphia, Pa., Publishers.
- Sayers and Scoville Company, Cincinnati, Ohio, Ambulance.
- Scanlon-Morris Company, Madison, Wis., Sterilizers, Operating Room Equipment, Ward Furniture.
- F. O. Schoedinger, Columbus, Ohio, Hospital Furniture.
- Ad Seidel & Sons, 1245-57 Garfield Ave., Chicago, Ill., "Seidel Jelly Maker."
- Selected Plans for Tuberculosis Sanatoria, Educational.
- John Sexton & Co., Illinois and Kingsbury Sts., Chicago, Ill., Canned Fruits and Vegetables, Jellies and Preserves.
- Sharp & Smith Company, 65 East Lake St., Chicago, Ill., Surgical Instruments.
- The Simmons Company, Kenosha, Wis., Simmons' Hospital and Institutional Equipment.
- E. R. Squibb & Sons, 78 Beekman St., New York City, Manufacturing Chemists.
- Standard Apparel Company, 421 Erie Bldg., Cleveland, Ohio, Nurses' Caps and Uniforms.
- Stanley Supply Company, 118 E. 25th St., New York City, Hospital Supplies and Equipment.
- Statistical Exhibit of Hospital Social Work, Educational.
- Stedman Products Company, South Braintree, Mass., Flooring.
- Thorner Bros., 388 Second Ave., New York City, General Hospital Supplies.
- Toledo Technical Appliance Company, 2226 Ashland Ave., Toledo, Ohio, Scientific Apparatus.
- Trained Nurse & Hospital Review, 37 W. 39th St., New York City, "Magazine."
- U. S. Industrial Alcohol Company, 3652 Archer Ave., Chicago, Ill., Alcohol.
- U. S. Slicing Machine, La Porte, Ind., Slicers.
- United States Rubber Company, 1790 Broadway, New York City, Rubber Flooring.
- Universal Hospital Supply Company, 500-512 N. Dearborn St., Chicago, Ill., Hospital Supplies.
- Universal Indicator Company, Mack Block, Milwaukee, Wis., Hospital Signal System.
- Utica Steam & Mohawk Valley Cotton Mills, Utica, N. Y., Sheets and Pillow Cases.
- Ventilight Company, 16 S. Third St., Columbus, Ohio, Shade Adjuster.
- Victor X-Ray Corporation, 236 S. Robey St., Chicago, Ill., X-Ray Equipment.

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Vit-O-Net Manufacturing Company, 1225 N. Clark St., Chicago, Ill., Electric Blankets and Pads.
Vorclone Company, 338 S. Water St., Milwaukee, Wis., Drying Tumblers and Fan Devices.
Waters-Genter Company, 20 N. Second St., Minneapolis, Minn., Automatic Toaster.
P. C. West Manufacturing Company, 105 W. Monroe St., Chicago, Ill., Can Opener.
Wilmot Castle Company, Rochester, N. Y., Sterilizers.
Wilson Rubber Company, Canton, Ohio, Rubber Gloves.
Wisconsin School for the Deaf, Delavan, Wis., Educational.
Wright Rubber Products Company, Racine, Wis., Rubber Flooring, Tile.

EXHIBITORS IN THE MODEL KITCHENS

Aluminum Cooking Utensil Company, New Kensington, Pa., Wear Ever Aluminum Equipment.
Anstice & Co., Josiah, 220 N. Water St., Rochester, N. Y., Sterling Slicers.
Baker Linen Company, H. W., 41 Worth St., New York, N. Y., Linens.
Century Machine Company, Cincinnati, Ohio, Mixer.
Crescent Washing Machine Company, New Rochelle, N. Y., Glass and Dish Washer.
Duparquet, Huot and Moneuse Company, 110 W. 22nd St., New York, N. Y., Ranges.
Edison Electric Appliance Company, 5660 Taylor St., Chicago, Ill., Electric Appliances.
Green Oil Soap Company, 166 N. Curtis St., Chicago, Ill., Soaps, Kinney Soap and Water Mixer.
Hobart Manufacturing Company, 48-69 Penn Ave., Troy, Ohio, Electric Mixer.
Keifer & Co., 433 Milwaukee St., Milwaukee, Wis., Cooking Utensils.
Lyons Sanitary Urn Company, 235 E. 44th St., New York, N. Y., Liquid Dispensers, Milk Urns, Cream Urns.
Pick & Co., Albert, 220 W. Randolph St., Chicago, Ill., China, Glass and Silver.
Read Machinery Company, York, Pa., Speed Mixing and Kitchen Machines.
Smith Company, John E., Buffalo, N. Y., Meat, Food and Vegetable Chopper.
Toledo Cooker Company, Toledo, Ohio, Conveyer.
West Manufacturing Company, P. C., 105 W. Monroe St., Chicago, Ill., Can Opener.
Union Steel Products Company, Albion, Mich., Baking Equipment.
U. S. Slicing Machine Company, La Porte, Ind., Slicers.

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